

1

2

3

4

5

UDOT

CONNECTING COMMUNITIES

UDOT MAINTENANCE

STATION #4435A

50 FRONT STREET

SCOFIELD, UTAH 84526

CONSTRUCTION DOCUMENTS

DFCM PROJECT #08300900

CONTRACT #97236

FEBRUARY, 2009

PREPARED BY

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GROUP

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50 FRONT STREET

SCOFIELD, UTAH 84526

NO SCALE

↑

N

IDAHO

UTAH

WYOMING

COLORADO

NEVADA

ARIZONA

SCOFIELD

ARCHIPEX

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CLIENT

UDOT

CONNECTING COMMUNITIES

STATION #4435A  
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SCOFIELD, UTAH 84526

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Ralph Stanislaw

STATE OF UTAH

RALPH M. STANISLAW

05-30289-0301

LICENSED ARCHITECT

ISSUE

	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK

DATE

DESCRIPTION

DFCM PROJECT NO:

08300900

DFCM CONTRACT NO:

97236

ARCHIPEX PROJECT NO:

0837.01

DRAWN BY:

A. PHILLIPS

CHECKED BY:

R. STANISLAW

SCALE:

NONE

DATE:

FEBRUARY, 2009

SHEET TITLE

COVER SHEET

G000

CODE ANALYSIS

APPLICABLE CODES

	Year		Year
International Building Code	2008	National Electrical Code	2008
International Mechanical Code	2008	Uniform Code for	
International Plumbing Code	2008	Building Conservation	N.A.
International Fire Code	2008	ADA Accessibility	
International Energy Conservation Code	2008	Guidelines-ANSI A117.1	2003

A. Occupancy and Group:

S2

B

OFFICE

ACCESSORY

Change in Use: Yes No X Mixed Occupancy: Yes X No  
Special Use and Occupancy (e.g. High Rise, Covered Mail): N.A.

B. Seismic Design Category:

D

Design Wind Speed:

90

MPH

C. Type of Construction (circle one):

I

I

II

II

III

III

IV

V

V

A

B

HT

A

B

D. Fire Resistance Rating

Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: 0 South: 0 East: 0 West: 0

E. Mixed Occupancies:

YES

Nonseparated Uses:

YES

F. Group S-2 Fire Area (Maintenance building) = 4,600

Sprinklers Required: NO Provided: NO Type of Sprinkler System: N.A.

G. Number of Stories:

1

Building Height:

24'-6"

H. Actual Area per Floor (square feet):

4,600 SF

I. Tabular Area (Table 503):

13,500 SF (S2 Occupancy)

J. Area Modifications (Section 506.1):

a)  $A_a = A_t + \left[ \frac{A_t I_t}{100} \right] + \left[ \frac{A_t I_a}{100} \right]$

$I_t = 100 \left[ \frac{F}{P} - 0.25 \right] \frac{W}{30}$

$25 = 100 \left[ \frac{142}{284} - .025 \right] \frac{30}{30}$

$16875 \text{ SF} = 13500 + \left[ \frac{13500 (25)}{100} \right] + \left[ \frac{13500 (0)}{100} \right]$

b) Sum of the Ratio Calculations for Mixed Occupancies (508):

$B/S2 = 237/4363 = 5.4\% < 10\%$

Therefore B is less than 10% and is less than 750 SF and is not considered a separate occupancy.

c) Total Allowable Area for:

1) One Story: 16875 SF

2) Two Story:  $A_a(2)$  N.A.

3) Three Story:  $A_a(3)$  N.A.

d) Unlimited Area Building:

Yes No X

Code Section:

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0	N.A.	Floors - Ceiling Floors	0	N.A.
Interior Bearing Walls	0	N.A.	Roofs - Ceiling Roofs	0	N.A.
Exterior Non-Bearing Walls	0	N.A.	Exterior Doors and Windows	0	N.A.
Structural Frame	0	N.A.	Shaft Enclosures	0	N.A.
Partitions - Permanent	0	N.A.	Fire Walls	0	N.A.
Fire Barriers	0	N.A.	Fire Partitions	0	N.A.
			Smoke Partitions	0	N.A.

L. Design Occupant Load:

12

(Per IBC TABLE 1004.1.2 Using 500 S.F. per Occupant for garages, 100 S.F. for office areas)

Edt Width Required (1005):

2'-4"

Edt Width Provided:

36"

M. Minimum Number of Required Plumbing Facilities: UNISEX (IBC SECTION 2002.2 EXCEPTION 2)

Actual Occupant Load:

4

BASED ON ACTUAL UDOT STAFFING

a) Water Closets - Required

1

Provided

1

UNISEX

b) Lavatories - Required

1

Provided

1

UNISEX

c) Bath Tubs or Showers:

1 (EMERGENCY EYEWASH)

d) Drinking Fountains:

2

Service Sinks:

GENERAL NOTE:

1

1. CONSTRUCTION OF NEW STATE BUILDINGS AND REMODELING OF EXISTING BUILDINGS SHALL COMPLY WITH ALL THE REQUIREMENTS OF THE DFCM STANDARDS, INCLUDING ENHANCED ACCESSIBILITY. TO THE BEST OF OUR KNOWLEDGE, DRAWINGS & SPECIFICATIONS INCORPORATED HEREIN CONFORM WITH DFCM STANDARDS FOUND AT THE FOLLOWING WEB SITE: [www.dfcu.utah.gov](http://www.dfcu.utah.gov).

2. EVERY STRUCTURE, AND PORTION THEREOF, INCLUDING NONSTRUCTURAL COMPONENTS THAT ARE PERMANENTLY ATTACHED TO STRUCTURES AND THEIR SUPPORTS AND ATTACHMENTS, SHALL BE DESIGNED AND CONSTRUCTED TO RESIST TO EFFECTS OF EARTHQUAKE MOTIONS IN ACCORDANCE WITH ASCE 7-05. REFERENCE IBC SECTION 1613.1.










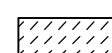
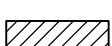



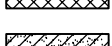
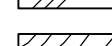
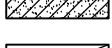
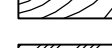
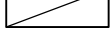
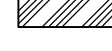
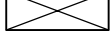
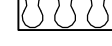
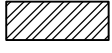
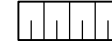
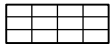

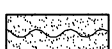


3. FOR THE PURPOSE OF THIS SECTION, DEFERRED SUBMITTALS ARE DEFINED AS PER SECTION 106.3.4.2 OF THE IBC. SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ENGINEER, ARCHITECT, AND BUILDING OFFICIAL FOR THEIR REVIEW FOR GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. DEFERRED STRUCTURAL SUBMITTALS FOR THIS PROJECT ARE:  
1. OPEN WEB STEEL JOISTS



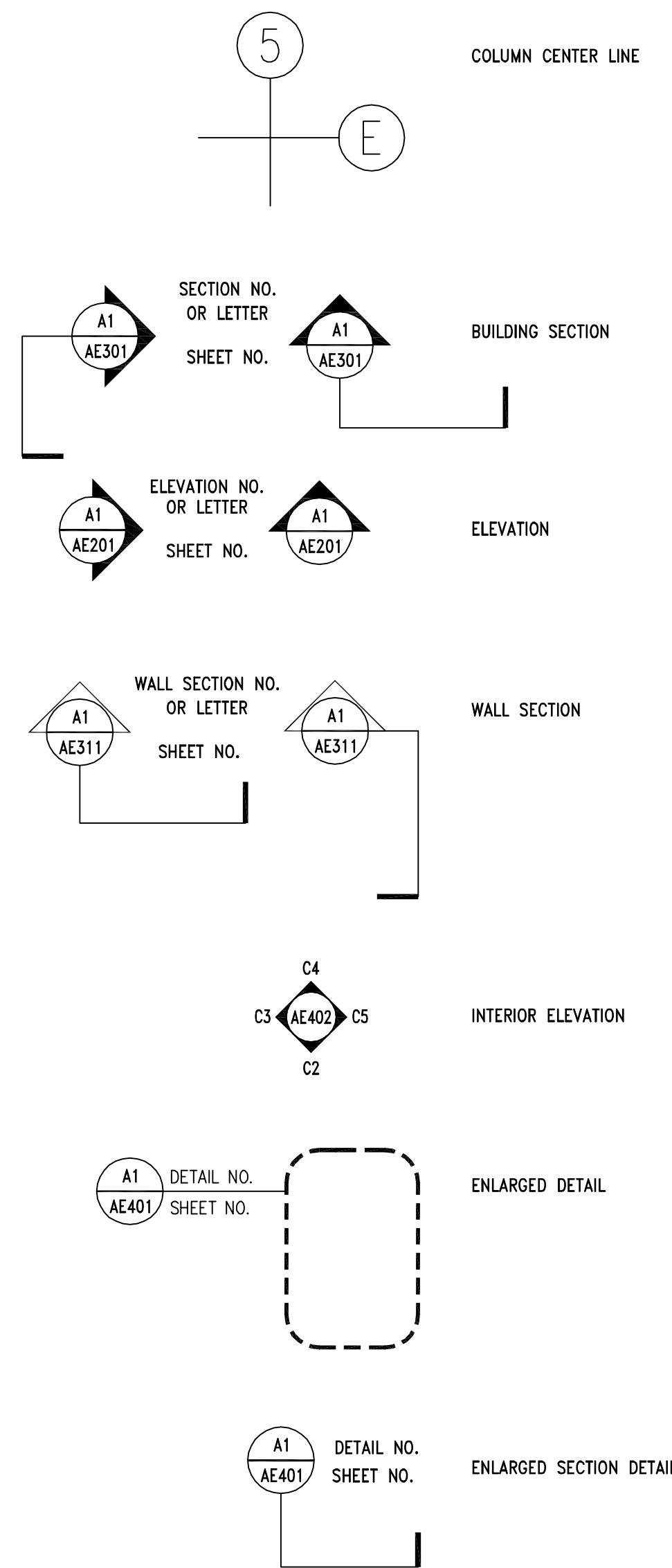
## GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS AT THE SITE BEFORE SUBMITTING A BID OR PROCEEDING WITH ANY PORTION OF THE WORK.
2. WHENEVER QUESTIONS ARISE OR CONDITIONS ARE ENCOUNTERED WHICH ARE NOT COVERED BY OR ARE IN CONFLICT WITH THE CONTRACT DOCUMENTS, CONSULT WITH THE ARCHITECT PRIOR TO TAKING ANY FURTHER ACTION.
3. ALL DIMENSIONS ARE TO FACE OF CONCRETE OR FACE OF GYPSUM BOARD, U.N.O..
4. DO NOT SCALE DRAWINGS FOR DIMENSIONS.
5. DIMENSIONS NOTED AS N.T.S. ARE TO BE FIELD VERIFIED.
6. ALL WOOD IN CONTACT WITH OR WITHIN 8" OF SOILS IS TO BE FIELD TREATED FOR MOISTURE, RODENT AND INSECT PROTECTION.
7. THE CONTRACTOR SHALL COORDINATE THE SEQUENCING OF WORK WITH THE OWNER AND ARCHITECT TO MEET THE OWNERS SCHEDULE.
8. CONTRACTOR SHALL LEAVE WORK AREAS BROOM CLEAN AND FREE OF TOOLS, EQUIPMENT, ETC., AT THE END OF EACH SHIFT. ALL CONSTRUCTION ACTIVITY SHALL BE CONTAINED WITHIN CONSTRUCTION BARRICADES OR FENCES. CONTRACTOR SHALL PROTECT OWNERS EXISTING CONSTRUCTION AND EQUIPMENT ADJACENT TO NEW CONSTRUCTION. CONTRACTOR SHALL CLEAN ALL SURFACES TO "LIKE NEW" CONDITION AT THE COMPLETION OF
9. PROVIDE WATER SUPPLY ROUGH-IN AND ELECTRICAL SUPPLY TO IRRIGATION CONTROLS. PROVIDE PVC SLEEVE UNDER PAVEMENTS AND WALKS

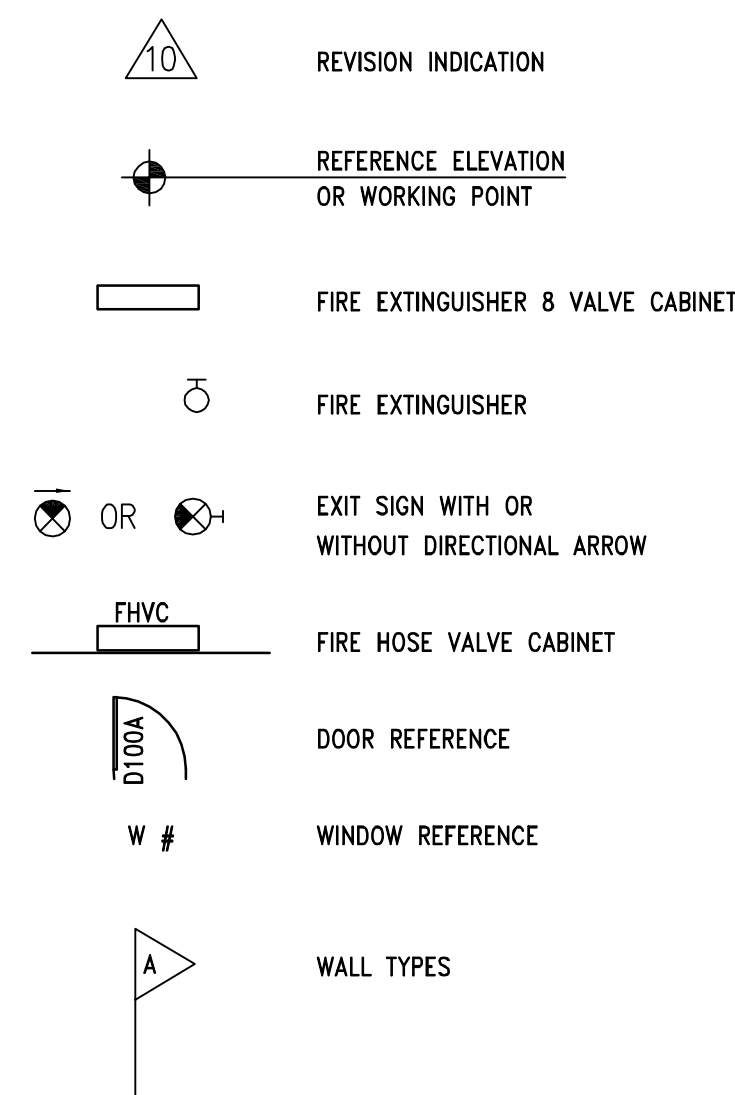
## GRAPHIC SYMBOLS

	ASPHALT		GRAVEL
	EARTH		CONCRETE
	SAND		CAST STONE
	CONC. W/ FINISH		MARBLE
	TILE W/ BED		GRANITE
	BRICK		STONE
	CMU		PLYWOOD
	LIMESTONE		WOOD FINISH
	WOOD (BLOCKING)		ALUMINUM
	WOOD FRAMING		BATT INSULATION
	STEEL		ACOUSTICAL TILE
	RIGID INSULATION		BACKER ROD AND FILLER
	PLASTER		GYPSUM BOARD
	COMP. FILLER		FENCE
	METAL LATH		

## ARCHITECTURAL LEGEND



DETAIL NO. XX | DETAIL NAME \_\_\_\_\_  
 SHEET NO. XXXX | REF. REFERENCE DRAWING \_\_\_\_\_ SCALE: DWG. SCALE



## ABBREVIATIONS

ALT.	ALTERNATE	FIN.	FINISH	MISC.	MISCELLANEOUS	STD.	STANDARD
ALUM.	ALUMINUM	F.A.	FIRE ALARM	MTD.	MOUNTED	STL.	STEEL
A.B.	ANCHOR BOLT	F.E.	FIRE EXTINGUISHER	MUL.	MULLION	STOR.	STORAGE
&	AND	F.E.C.	F.E. CABINET			STRUCT.	STRUCTURAL/STRUCTURE
ARCH.	ARCHITECTURAL	FLR./FL.	FLOOR	NOM.	NOMINAL	SYM.	SYMMETRICAL
●	AT OR AT THE	F.D.	FLOOR DRAIN	N.	NORTH	S.STL	STAINLESS STEEL
		FTG.	FOOTING	N.I.C.	NOT IN CONTRACT		
BM.	BEAM	FDN.	FOUNDATION	N.T.S.	NOT TO SCALE	TEL.	TELEPHONE
BLK.	BLOCK			NO. OR #	NUMBER	TEMP.	TEMPORARY/TEMPERED
BLKG.	BLOCKING	GALV.	GALVANIZED			THK.	THICK (NESS)
BD.	BOARD	G.I.	GALVANIZED IRON			T & G	TONGUE AND GROOVE
BOT.	BOTTOM	GA.	GAUGE	OF01	OWNER FURNISH, OWNER INSTALL	T/CONC.	TOP OF CONCRETE
BLDG.	BUILDING	GL.	GLASS	OF01	OWNER FURNISH, CONTRACTOR INSTALL	T/CURB	TOP OF CURB
		GR.	GRADE			T.O.P.	TOP OF PLATE
CLKG.	CAULKING	GND.	GROUND	OFF.	OFFICE	T/WALL	TOP OF WALL
C.I.	CAST IRON	GYP.	GYP SUM	O.C.	ON CENTER	T.	TREAD
CLG.	CEILING	GYP. BD.	GYP SUM BOARD	OPNG.	OPENING	TYP.	TYPICAL
CEM.	CEMENT			OPP.	OPPOSITE		
CTR.	CENTER	HDWR.	HARDWARE	OPP. H.	OPPOSITE HAND	UNF.	UNFINISHED
	CENTER LINE	HDWD.	HARDWOOD	O.D.	OUTSIDE DIAMETER	U.N.O.	UNLESS NOTED OTHERWISE
CER.	CERAMIC	HT.	HEIGHT				
C.T.	CERAMIC TILE	H.P.	HIGH POINT	PTD.	PAINTED	VAR.	VARY OR VARIES
CF01	CONTRACTOR FURNISH,	HORIZ.	HORIZONTAL	PR.	PAIR	VERT.	VERTICAL
	CONTRACTOR INSTALL.	H.B.	HOSE BIBB	PART.	PARTITION	V.T.R.	VENT THROUGH ROOF
CF01	CONTRACTOR FURNISH, OWNER INSTALLED	HM	HOLLOW METAL	PED.	PEDESTRIAN		
		HR.	HOURS (FIRE RATING)	PLAS.	PLASTER	W/	WITH
CLR.	CLEAR (...ANCE)			P. LAM.	PLASTIC LAMINATE	WD.	WOOD
CLO.	CLOSET	IN.	INCH	PL	PLATE	WP.	WATERPROOF
COL.	COLUMN	I.D.	INSIDE DIAMETER	PM	PRESSED METAL	WSCT.	WAINSCOT
CONC.	CONCRETE	INSL.	INSULATION	PLYWD.	PLYWOOD	W/O	WITHOUT
CMU	CONCRETE MASONRY UNIT	INT.	INTERIOR	PT.	POINT	W.P.	WORKING POINT
CONN.	CONNECTION	JAN.	JANITOR			W.R.	WATER RESISTANT
CONSTR.	CONSTRUCTION	JT.	JOINT	Q.T.	QUARRY TILE		
CONT.	CONTINUE/CONTINUOUS	J-BOX	JUNCTION BOX	RAD.	RADIUS		
CONTR.	CONTRACTOR			R.W.L.	RAIN WATER LEADER		
C.J.	CONTROL JOINT	KIT.	KITCHEN	RE:	REFER TO		
CORR.	CORRIDOR	LAM.	LAMINATE	REFL.	REFLECTED		
CNTR.	COUNTER	LAV.	LAVATORY	REINF.	REINFORCING		
CTSK.	COUNTERSUNK	LT.	LIGHT	REQ.	REQUIRED		
		L.P.	LOW POINT	REV.	REVISED		
DET.	DETAIL			R.	RISER		
DIA.	DIAMETER			R.D.	ROOF DRAIN		
DIM.	DIMENSION	MAINT.	MAINTENANCE	RM.	ROOM		
DN.	DOWN	MFR.	MANUFACTURER	R.O.	ROUGH OPENING		
D.S.	DOWNSPOUT	M.O.	MASONRY OPENING				
DWG.	DRAWING	MAX.	MAXIMUM	SCHED.	SCHEDULE		
D.F.	DRINKING FOUNTAIN	MECH.	MECHANICAL	SEAL	SEALANT		
		MEMB.	MEMBRANE	SECT.	SECTION		
EA.	EACH	MEN	MEN'S TOILET	S.S.K.	SERVICE SINK		
ELEC.	ELECTRIC (AL)	MTL./MET.	METAL	SHT.	SHEET		
ELEV./EL.	ELEVATION	MIN.	MINIMUM	SIM.	SIMILAR		
EQ.	EQUAL	MIR.	MIRROR	SL./SLP.	SLOPE		
EQUIP.	EQUIPMENT			S.C.	SOLID CORE		
EXP.	EXPANSION			SPEC.	SPECIFICATIONS		
EXT.	EXTERIOR			SQ.	SQUARE		
EW	EACH WAY						

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G003	SPECIAL INSPECTION AND TESTING FORM

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C200	SITE AND UTILITY PLAN
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C401	EROSION CONTROL DETAILS
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AE301	BUILDING SECTIONS
AE311	WALL SECTIONS

## ARCHITECTURAL

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AE121	REFLECTED CEILING PLAN
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AE402	INTERIOR ELEVATIONS AND MISC. DETAILS
AE501	WALL TYPES AND MISC. DETAILS
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SF111	ROOF FRAMING PLAN
SB501	FOOTING AND FOUNDATION DETAIL
SB502	FOOTING AND FOUNDATION DETAIL
SB503	FOOTING AND FOUNDATION DETAIL
SF511	ROOF FRAMING DETAIL
SF512	ROOF FRAMING DETAIL
SB601	SCHEDULES
SF601	SCHEDULES

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M601	MECHANICAL DETAILS
M602	MECHANICAL DETAILS
M603	MECHANICAL DETAILS

P001	PLUMBING LEGEND AND SCHEDULES
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E301	ELECTRICAL POWER PLAN
E302	SNOW MELT
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E501	ELECTRICAL DETAILS



STATION #4435A  
160 EAST HIGHWAY 96  
SCOFIELD, UTAH 84526

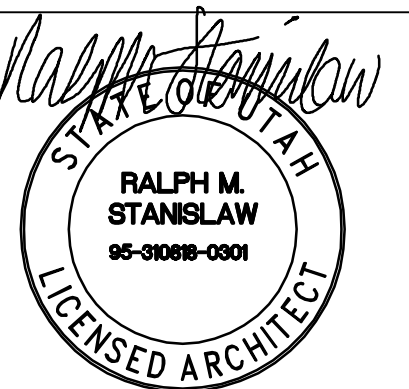
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## CONSULTANTS

## PROFESSIONAL SEAL



## ISSUE

	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08300900
DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
DRAWN BY:		A. PHILLIPS
CHECKED BY:		R. STANISLAW
SCALE:		NONE
DATE:		FEBRUARY, 2009

## SHEET TITLE

## GENERAL NOTES, ABBREVIATIONS, LEGENDS AND DRAWING INDEX

G001



MASTER KEYNOTE LIST – (APPLIES TO ARCHITECTURAL DRAWINGS ONLY)

DIVISION 2 SITEWORK

02200 EARTHWORK

02200.A0 COMPACTED FILL  
02200.B0 GRAVEL BASE  
02200.C0 SAND

02513 ASPHALT CONCRETE PAVING

02513.A0 ASPHALT CONCRETE PAVING

02520 PAVING

02520.A0 CONCRETE PAVING  
02520.C0 CONCRETE CURB  
02520.F0 THICKENED EDGE  
02520.G4 CONSTRUCTION JOINT  
02520.L3 CONTINUOUS REINFORCING (SIZE, SPACING)

02720 DRAINAGE

02720.D0 TRENCH DRAIN  
02720.M0 FLOOR DRAIN – SEE MECHANICAL

02822 CHAIN LINK FENCES & GATES

02822.B1 2" # GATE FRAME  
02822.C1 NEW 6" HIGH CHAIN LINK FENCE – SEE CIVIL  
02822.D1 TENSION TIE WIRE  
02822.E1 LINE POSTS @ 10'-0" O.C.  
02822.E2 LINE POSTS @ 8'-0" O.C.  
02822.F1 2" DIAMOND MESH STEEL FABRIC

02831 HORIZONTAL SLIDING GATE OPERATORS

02831.A1 PHYSICAL TRAVEL STOP  
02831.B1 HYDRAULIC SLIDE GATE OPERATOR W/AUDIO ALARM  
02831.C1 UNDERGROUND OBSTRUCTION LOOP  
02831.D1 GATE SENSORS  
02831.E1 KEY PAD ACCESS ON PEDESTAL  
02831.F1 CARD READER ON PEDESTAL  
02831.G1 FIRE ACCESS & KNOX BOX ON PEDESTAL  
02831.H1 GATE RECEIVER POCKET

DIVISION 3 CONCRETE

03053 CONCRETE WATER PROOFING ADMIXTURE

03053.A0 CONCRETE WATERPROOFING ADMIXTURE

03054 OLIOPHOBIC TOPICAL CONCRETE SEALER

03054.A0 OLIOPHOBIC TOPICAL SEALER

03055 SALT AND WATER BARRIER

03055.A0 SALT AND WATER BARRIER FOR EXTERIOR CONCRETE

03300 CAST-IN-PLACE CONCRETE

03300.A0 CONCRETE – SLAB ON GRADE  
03300.A1 CONCRETE SLAB-ON-GRADE – SEE STRUCTURAL  
03300.A2 CONCRETE SLAB-ON-GRADE (THICKNESS)  
03300.B1 CONCRETE SLAB – SEE STRUCTURAL  
03300.B2 CONCRETE SLAB (THICKNESS)  
03300.C0 FOOTING  
03300.C1 FOOTING – SEE STRUCTURAL  
03300.D0 CONCRETE PAD  
03300.E0 RETAINING WALL  
03300.F0 CAST-IN-PLACE REINFORCED CONCRETE  
03300.G0 CONCRETE OVER METAL DECK – SEE STRUCTURAL  
03300.H0 FOUNDATION WALL – SEE STRUCTURAL  
03300.H1 CONCRETE PIER – SEE STRUCTURAL  
03300.J0 REINFORCING  
03300.J1 REINFORCING – SEE STRUCTURAL  
03300.J2 #4 BARS CONTINUOUS (QUANTITY)  
03300.J3 #5 BARS CONTINUOUS (QUANTITY)  
03300.K1 CONCRETE PIPE BASE  
03300.L1 30# FELT  
03300.M1 MOISTURE BARRIER  
03300.N0 CONCRETE CURB  
03300.P3 CONTROL JOINT – SEE STRUCTURAL  
03300.P4 CONSTRUCTION JOINT  
03300.P5 ISOLATION JOINT  
03300.P6 CHAMFER JOINT  
03300.P7 SAWCUT CONSTRUCTION JOINT, TYP.  
03300.Q1 CONCRETE BOLLARD PAINTED (SEE STRUTURAL)  
03300.R0 3/4" CHAMFER  
03300.S1 SPLASH BLOCK  
03300.S2 CONCRETE SWALE  
03300.T1 CONCRETE @ STAIR TREAD

DIVISION 4 MASONRY

04200 UNIT MASONRY

04200.A0 CMU  
04200.A2 CMU (SIZE)  
04200.A3 SPLIT FACE (SIZE)  
04200.B0 GROUT SOLID  
04200.C0 BOND BEAM (SHAPE)  
04200.C1 BOND BEAM – SEE STRUCTURAL  
04200.D1 CMU LINTEL – SEE STRUCTURAL  
04200.G1 REINFORCING – SEE STRUCTURAL  
04200.K2 ANCHOR BOLTS (DIAMETER, SPACING)  
04200.M0 WEEP HOLES  
04200.N0 METAL FLASHING  
04200.O0 INSULATED BLOCK  
04200.R0 MASONRY CONTROL JOINT

DIVISION 5 METALS

05120 STRUCTURAL STEEL

05120.A0 STEEL BEAM – SEE STRUCTURAL  
05120.A1 STEEL BEAM – SEE STRUCTURAL – GALVANIZED  
05120.A2 STEEL BEAM – SEE STRUCTURAL – PRIMED AND PAINTED  
05120.B0 STEEL COLUMN – SEE STRUCTURAL  
05120.B1 STEEL COLUMN – SEE STRUCTURAL – GALVANIZED  
05120.B2 STEEL COLUMN – SEE STRUCTURAL – PRIMED AND PAINTED  
05120.C1 TUBE STEEL BEAM – SEE STRUCTURAL – GALVANIZED  
05120.D1 TUBE STEEL COLUMN – SEE STRUCTURAL  
05120.D2 TUBE STEEL COLUMN – SEE STRUCTURAL – PRIMED & PAINTED

05220 STEEL JOISTS AND JOIST GIRDERS

05220.A1 STEEL JOISTS – SEE STRUCTURAL  
05220.A2 STEEL JOISTS – SEE STRUCTURAL – PRIMED AND PAINTED  
05220.B2 STEEL GIRDERS – SEE STRUCTURAL – PRIMED AND PAINTED

05310 STEEL DECK

05310.A1 METAL DECK – SEE STRUCTURAL

05400 COLD-FORMED METAL FRAMING

05400.A0 STRUCTURAL STEEL STUDS – SEE STRUCTURAL DRAWINGS FOR SIZE, SPACING AND GAUGE  
05400.A1 6" STRUCTURAL STEEL STUDS – SEE STRUCTURAL DRAWINGS FOR SPACING AND GAUGE  
05400.A2 3 5/8" STRUCTURAL STEEL STUDS – SEE STRUCTURAL DRAWINGS FOR SPACING AND GAUGE  
05400.B0 STRUCTURAL STEEL TRACK – SEE STRUCTURAL

05500 METAL FABRICATIONS

05500.A1 STEEL ANGLE – SEE STRUCTURAL  
05500.A2 STEEL ANGLE (SIZE) – GALVANIZED  
05500.A3 STEEL ANGLE (SIZE) – GALVANIZED – PRIMED AND PAINTED  
05500.B0 CLIP ANGLE  
05500.B2 CLIP ANGLE (SIZE)  
05500.C1 SHEET METAL ANGLE – 22 GA. – GALVANIZED (SIZE)  
05500.D0 CHANNEL (SIZE)  
05500.D1 CHANNEL – SEE STRUCTURAL  
05500.D2 HAT CHANNEL (SIZE)  
05500.D3 CHANNEL – SEE STRUCTURAL – PRIMED AND PAINTED  
05500.E0 STEEL PLATE (SIZE)  
05500.E1 STEEL PLATE – SEE STRUCTURAL  
05500.E2 STEEL PLATE (SIZE) – GALVANIZED  
05500.E3 BENT PLATE – SEE STRUCTURAL  
05500.F1 THRU BOLT (DIAMETER)  
05500.G1 BENT BAR TAB (THICKNESS)  
05500.G2 BARTAB (THICKNESS)  
05500.H1 LAG BOLTS (DIAMETER)  
05500.I1 PIPE BOLLARD (DIAMETER) – GALVANIZED & PAINTED  
05500.K1 GALVANIZED STEEL PIPE RACKS  
05500.M1 CHECKERED PLATE (SIZE) GALVANIZED  
05500.P0 ANCHOR BOLT(S)  
05500.P1 ANCHOR BOLTS (DIAMETER, SPACING)  
05500.V0 FLOOR PLATE  
05500.X1 STRUCTURAL STEEL STUD (SEE STRUCTURAL FOR GA. & PLACEMENT)  
05500.X2 STEEL RUNNER (SEE STRUCTURAL)  
05500.Y0 AIR DUCT SCREEN  
05500.Y1 AIR DUCT SCREEN – SEE MECHANICAL – PAINTED  
05500.Z0 CHAIN – GALVANIZED

DIVISION 6 WOOD AND PLASTICS

06105 MISCELLANEOUS CARPENTRY

06105.L2 BLOCKING AS REQUIRED  
06105.P1 2X4  
06105.P2 2X6  
06105.P6 4X4  
06105.P9 2 x FRAMING, FIRE TREATED  
06105.P10 PRESSURE TREATED WOOD TIMBER (SIZE)  
06105.Q2 SHIM AS REQUIRED  
06105.R2 SHEATHING – PLYWOOD (THICKNESS)  
06105.R3 PLYWOOD PANEL (THICKNESS) – MECHANICALLY FASTENED THROUGH INSULATION INTO CMU WALL  
06105.R4 PLYWOOD PANEL (THICKNESS)  
06105.V1 EXTERIOR GRADE PLYWOOD (THICKNESS) – PAINTED  
06105.V6 PEGBOARD (THICKNESS)  
06105.Z0 ANCHOR AS REQUIRED

06402 INTERIOR ARCHITECTURAL WOODWORK

06402.A0 SILL  
06402.B1 PLASTIC LAMINATE BACKSPLASH (HEIGHT)  
06402.C1 PAINT GRADE WOOD CAP (THICK)  
06402.D1 P. LAM. ON 1/4" PLYWOOD BACKING (FINISH)  
06402.E1 WIRE PULL  
06402.F1 PROVIDE WHITE MELAMINE FINISH @ ALL INTERIOR SURFACES  
06402.G1 3/4" PARTICLE BOARD CABINET TOP W/PLAM (FINISH)  
06402.G2 3/4" PARTICLE BOARD CABINET BASE W/PLAM (FINISH)  
06402.H0 SHELF(VEs)  
06402.H1 ADJUSTABALE SHELVES (FINISH)  
06402.H2 SHELIVING (DEPTH)  
06402.I1 RECESSED SHELF BRACKETS  
06402.K0 BASE UNIT (FINISH)  
06402.K2 BASE UNIT W/ADJ. SHELF(VEs) (FINISH)  
06402.K3 BASE UNIT W/DRAWERS (FINISH)  
06402.K4 BASE UNIT W/DRAWER & ADJ. SHELF(VEs) (FINISH)  
06402.L1 WALL UNIT (FINISH)  
06402.L2 WALL UNIT W/ADJ. SHELF(VEs) (FINISH)  
06402.M1 3/4" PARTICLE BOARD SCREEN (FINISH)  
06402.P0 COUNTERTOP  
06402.P2 COUNTERTOP – P. LAM. ON 3/4" PLYWOOD  
06402.X0 WORKBENCH (DEPTH)

06651 SOLID SURFACE FABRICATIONS

06651.A0 1/2" WHITE SOLID SURFACE WINDOW SILL  
06651.B0 SOLID SURFACE COUNTER TOP  
06651.C0 SOLID SURFACE BACKSPLASH

DIVISION 7 THERMAL AND MOISTURE PROTECTION

07190 WATER REPELLANTS

07190.A0 CLEAR WATER RESISTANT COATING

07210 BUILDING INSULATION

07210.A1 BATT INSULATION (R-VALUE)  
07210.B0 RIGID INSULATION  
07210.B1 RIGID INSULATION (R-VALUE)  
07210.C0 RIGID INSULATION FOIL FACED W/VAPOR BARRIER  
07210.C1 RIGID INSULATION (CONTINUOUSLY ADHERED TO CMU) W/FOIL FACED VAPOR BARRIER TOWARDS INTERIOR (R-VALUE)  
07210.D0 VAPOR BARRIER  
07210.E0 FOUNDATION WALL INSULATION (THICKNESS)

07410 MANUFACTURED ROOF PANELS

07410.A0 STANDING SEAM METAL ROOF  
07410.A1 RAIN GUTTER W/CONTINUOUS HEAT TAPE  
07410.A2 DOWNSPOUT W/CONTINUOUS HEAT TAPE  
07410.B0 FASTENER  
07410.B1 METAL REGLET  
07410.C0 ROOFING FELT  
07410.E0 BREAK METAL  
07410.G0 FLASHING, FINISH TO MATCH LOUVER COLOR  
07410.G1 FLASHING, FINISH TO MATCH ROOF COLOR  
07410.G2 FLASHING, FINISH TO MATCH WINDOW  
07410.G3 FLASHING AT WINDOW JAMB, HEAD AND SILL  
07410.H0 METAL SIDING  
07410.H1 METAL WALL PANEL  
07410.H2 ALUMINUM CLAD WALL PANEL  
07410.J2 JAMB TRIM  
07410.K0 SEALANT  
07410.L0 METAL FACIA  
07410.M1 METAL SOFFIT  
07410.M2 ICE & WATER SHEILD  
07410.P1 PANEL TRIM  
07410.P2 RAKE TRIM  
07410.P3 GUTTER STRAPS  
07410.Q1 CLIP  
07410.R1 METAL EAVE CLOSURE  
07410.S1 STANDING SEAM METAL ROOF RIDGE  
07410.T1 STANDING SEAM METAL ROOF CANOPY

07729 ROOF SNOW GUARDS

07729.A0 STANDING SEAM METAL ROOF 2 PIPE SNOWGUARD SYSTEM

07901 JOINT SEALANTS

07901.A0 CONT. SEALANT  
07901.B0 ASPHALT SATURATED FIBERBOARD  
07901.C0 CONT. CAULK  
07901.D0 JOINT FILLER  
07901.G0 BACKER ROD  
07901.H1 CONCRETE JOINT WATER PROOF SEALANT  
07901.H2 JOINT SEALANT

DIVISION 8 DOORS AND WINDOWS

08111 STANDARD STEEL DOORS AND FRAMES

08111.A0 PRESSED METAL FRAME  
08111.A1 GROUT-FILLED PRESSED METAL FRAME  
08111.B0 HOLLOW METAL DOOR  
08111.C0 JAMB ANCHOR

08360 SECTIONAL OVERHEAD DOORS

08360.A0 HEAVY DUTY OVERHEAD SECTIONAL DOOR  
08360.B0 3" HEAVY DUTY OVERHEAD SECTIONAL DOOR TRACK  
08360.C0 WEATHERSTRIPPING  
08360.D0 DOOR GUIDE

08521 HORIZONTAL SLIDING VINYL (PVC) WINDOWS

08521.A0 VINYL WINDOW AS SCHEDULED  
08521.B0 FIXED VINYL WINDOW  
08521.C0 VINYL WINDOW W/SLIDING GLASS PANEL  
08521.M0 SILL STARTER, SET IN SEALANT

08710 DOOR HARDWARE

08710.A0 THRESHOLD  
08710.B0 DOOR SWEEP  
08710.C0 WEATHERSTRIPPING

08800 GLAZING

08800.C0 WIRE GLASS  
08800.G1 CLEAR INSULATING GLASS (SIZE)  
08800.G2 TEMPERED GLASS  
08800.G3 OPAQUE INSULATING GLASS

DIVISION 9 FINISHES

09255 GYPSUM BOARD ASSEMBLIES

09255.A0 GYPSUM BOARD  
09255.A1 GYPSUM BOARD (THICKNESS)  
09255.A2 WATER RESISTANT GYPSUM BOARD (THICKNESS)  
09255.B2 TYPE 'X' GYPSUM BOARD (THICKNESS)  
09255.C3 CEMENT BOARD (THICKNESS)  
09255.H0 METAL STUD  
09255.H1 METAL STUDS (SIZE, SPACING)  
09255.J0 METAL RUNNER  
09255.J1 METAL TOP TRACK  
09255.K0 DOUBLE STUDS  
09255.K1 DOUBLE STUDS (GAGE)  
09255.L1 7/8" X 1-3/8" METAL ANGLE  
09255.L2 2-1/2" X 2-1/2" METAL ANGLE  
09255.M2 METAL CORNER BEAD (TYP)  
09255.P0 Z-FURRING CHANNEL  
09255.Q0 7/8" METAL FURRING CHANNEL  
09255.R2 CHANNEL (SIZE, SPACING)  
09255.S1 8 GA. WIRE HANGERS (SPACING)  
09255.S2 18 GA. WIRE TIES  
09255.S3 18 GA. METAL MOUNTING STRIPS  
09255.S4 BRACING WIRE  
09255.S5 VERTICAL WIRE HANGER (SIZE)  
09255.U1 SUSPENDED CEILING SYSTEM  
09255.U2 CROSS CHANNEL  
09255.V3 5/4" CONDUIT COMPRESSION BRACE  
09255.V0 EDGE TRIM (TYP)  
09255.V2 LC-BEAD (PREFERRED USG 200-A TRIM)  
09255.V4 VINYL TRIM

09300 TILE

09300.A1 FLOOR TILE – SEE FINISH SCHED.  
09300.B1 WALL TILE – SEE FINISH SCHED.  
09300.C0 TILE BASE  
09300.D1 BULLNOSE TRIM UNIT  
09300.E1 1/2" x 6" TILE TRIM PIECE – SEE FINISH SCHED.  
09300.G1 MORTAR BED  
09300.G4 WATERPROOF MEMBRANE

09511 ACOUSTICAL PANEL CEILINGS

09511.A0 LAY-IN ACOUSTICAL CEILING SYSTEM  
09511.A1 HEAVY DUTY "T" BAR GRID SYSTEM  
09511.A2 CEILING SUSPENSION SYSTEM – MAIN RUNNER  
09511.A3 CEILING SUSPENSION SYSTEM – CROSS RUNNER  
09511.B1 VERTICAL WIRE HANGER (SIZE)  
09511.B2 BRACING WIRE (SIZE)  
09511.C1 COMPRESSION STRUTS  
09511.D1 METAL ANGLE EDGE  
09511.E1 LAY IN ACOUSTICAL CEILING PANEL  
09511.F1 SPREADER BAR REQUIRED TO KEEP PERIMETER COMPONENTS FROM SPREADING APART

09660 RESILIENT TILE FLOORING

09660.A1 VINYL COMPOSITION TILE  
09660.B1 VINYL TRANSITION STRIP

09678 RESILIENT WALL BASE AND ACCESSORIES

09678.E1 RUBBER BASE (SIZE)

09900 PAINTING

09900.A1 PAINT – SEE FINISH SCHED.

DIVISION 10 SPECIALTIES

10100 VISUAL DISPLAY BOARDS

10100.C0 MARKER BOARD (L X H)

10155 TOILET COMPARTMENTS

10155.A0 TOILET STALL PARTITION  
10155.B0 URINAL STALL PARTITION

10425 SIGNS

10425.A0 ROOM SIGNAGE  
10425.A1 OIL SIGNAGE  
10425.B1 WELDING SIGNAGE  
10425.C1 ACCESSIBLE SIGNAGE  
10425.D1 ACCESSIBLE/UNIXES RESTROOM SIGNAGE

10500 METAL LOCKERS AND STORAGE CABINETS

10500.A0 METAL LOCKERS (WIDTH)  
10500.B0 METAL STORAGE CABINETS

10522 FIRE EXTINGUISHERS AND ACCESSORIES

10522.A0 FIRE EXTINGUISHER

10800 TOILET AND BATH ACCESSORIES

10800.B0 PAPER TOWEL DISPENSER & WASTE RECEPTACLE  
10800.B1 SEMI-RECESSED PAPER TOWEL DISPENSER & WASTE RECEPTACLE  
10800.C0 TOILET TISSUE DISPENSER  
10800.C1 RECESSED TOILET TISSUE DISPENSER/SAN. NAP. DISPOSAL  
10800.D0 MOP RACK  
10800.E0 GRAB BAR  
10800.E1 GRAB BAR (SHOWER)  
10800.F0 ROBE HOOK  
10800.F1 DOUBLE PRONG ROBE HOOK  
10800.H0 SOAP DISPENSER  
10800.H1 SOAP DISH  
10800.P1 SHOWER CURTAIN ROD  
10800.P2 SHOWER CURTAIN  
10800.R1 FRAMED MIRROR (SIZE)  
10800.T1 FOLDING SHOWER SEAT  
10800.T0 METAL SHELF (SIZE)

DIVISION 12 FURNISHINGS

12511 HORIZONTAL LOUVER BLINDS

12511.A0 HORIZONTAL LOUVER BLINDS

DIVISION 14 CONVEYING SYSTEMS

14620 TROLLEY HOIST

14620.A0 TROLLEY HOIST (SIZE)

DIVISION 15 EQUIPMENT

15000 MECHANICAL

15000.A0 GAS METER – SEE MECHANICAL  
15050.A1 MECH. PENETRATIONS  
15194.A0 GAS METER – SEE PLUMBING DRAWINGS  
15250.A1 PIPE INSULATION AT ALL EXPOSED PIPE  
15410.A0 URINAL  
15410.A1 URINAL, ACCESSIBLE  
15410.B0 SINK FAUCET  
15410.B1 SINK FAUCET W/ADA LEVER HANDLES  
15410.C0 UTILITY SINK  
15410.D1 FLOOR SINK  
15410.E0 TRENCH DRAIN  
15410.E2 FLOOR DRAIN  
15410.F0 TOILET  
15411.A0 PRV STATION – SEE PLUMBING  
15412.A0 EMERGENCY SHOWER & EYE WASH  
15452.A1 DRINKING FOUNTAIN  
15486.A1 FUEL FIRED WATER HEATER  
15490.A0 WASTE OIL PUMP  
15490.B0 WASTE OIL CARTS  
15490.C0 WASTE OIL PIT  
15490.D0 280 GAL. DOUBLE WALL WASTE OIL TANK – C.F.C.I.  
15491.A0 AIR COMPRESSOR – O.F.C.I.  
15491.B0 OVERHEAD LUBE REEL  
15491.C0 OVERHEAD HOSE REEL  
15600.A0 PROPANE GAS RADIANT HEATER SYSTEM  
15611.A1 PROPANE GAS FIRED FURNACE  
15611.B1 UNIT HEATER  
15670.A1 CONDENSING UNIT – SEE MECHANICAL  
15838.A0 EXHAUST FAN – SEE MECHANICAL  
15838.A1 EXHAUST FAN VENT – SEE MECHANICAL  
15838.B0 VENT – SEE MECHANICAL  
15861.A1 MECHANICAL DUCTWORK – SEE MECHANICAL  
15887.A1 LOUVER WITH BIRD SCREEN – SEE MECHANICAL  
15887.B1 INTAKE GRAVITY HOOD – SEE MECHANICAL

DIVISION 16 ELECTRICAL

16000 ELECTRICAL

16128.A0 LOW VOLTAGE DE-ICING SNOW MELTING CABLE SYSTEM  
16128.B0 LOW VOLTAGE DE-ICING CABLING BOARD W/PRE CUT GROOVES  
16128.C0 LOW VOLTAGE DE-ICING CABLE  
16128.D0 LOW VOLTAGE DE-ICING CABLE PROTECTOR  
16128.E0 ATTACHMENT AS PER MANUFACTURER RECOMMENDATIONS  
16210.A1 ELECTRICAL METER – SEE ELECTRICAL  
16411.A1 EMERGENCY DISCONNECT – SEE ELECTRICAL  
16442.A0 ELECTRICAL PANEL  
16510.A0 INTERIOR LIGHTS  
16510.B0 WALL MOUNTED INTERIOR LIGHTS  
16520.B1 EXTERIOR WALL MOUNTED LIGHTS  
16520.B2 EXTERIOR WALL MOUNTED FLOOD LIGHTS  
16520.B3 EXTERIOR FLOOD LIGHTS – MOUNT TO STEEL COLUMN  
16520.C1 EXTERIOR FLOOD LIGHTS

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ISSUE

	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08300900
DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
DRAWN BY:		A. PHILLIPS
CHECKED BY:		R. STANISLAW
SCALE:		NONE
DATE:		FEBRUARY, 2009

SHEET TITLE

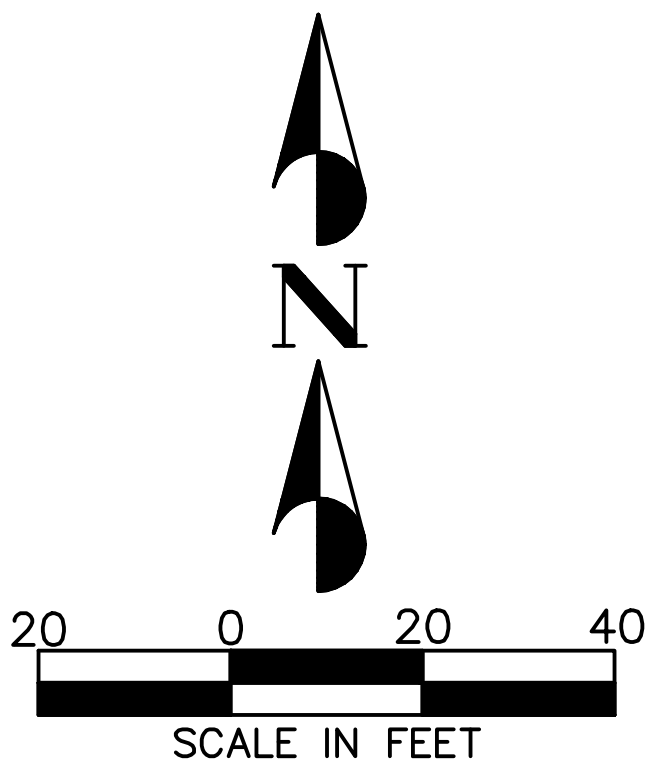
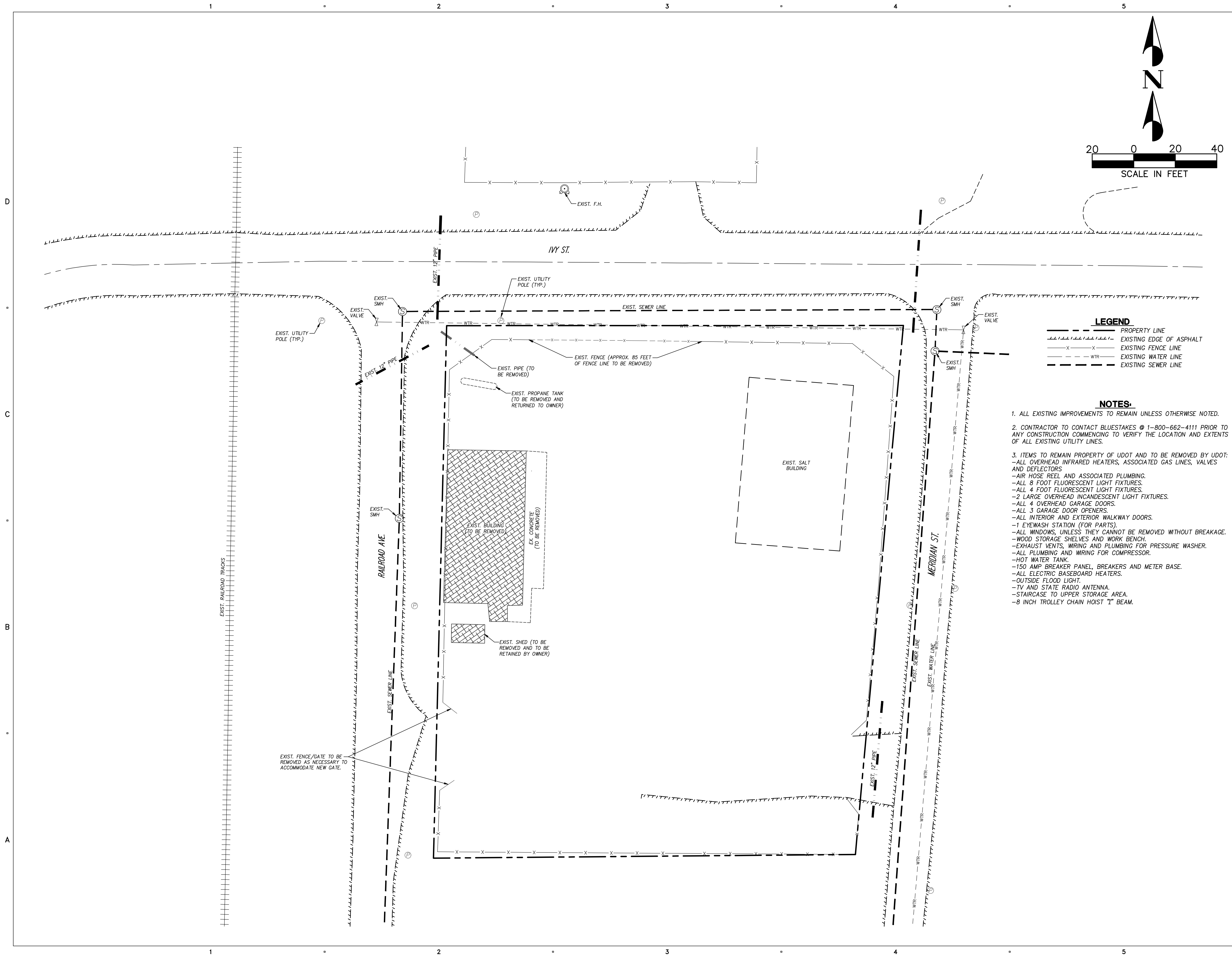
MASTER  
KEYNOTE LIST

G002









- LEGEND**
- PROPERTY LINE
  - - - - - EXISTING EDGE OF ASPHALT
  - - - - - EXISTING FENCE LINE
  - - - - - EXISTING WATER LINE
  - - - - - EXISTING SEWER LINE

- NOTES:**
- ALL EXISTING IMPROVEMENTS TO REMAIN UNLESS OTHERWISE NOTED.
  - CONTRACTOR TO CONTACT BLUESTAKES @ 1-800-662-4111 PRIOR TO ANY CONSTRUCTION COMMENCING TO VERIFY THE LOCATION AND EXTENTS OF ALL EXISTING UTILITY LINES.
  - ITEMS TO REMAIN PROPERTY OF UDOT AND TO BE REMOVED BY UDOT:
    - ALL OVERHEAD INFRARED HEATERS, ASSOCIATED GAS LINES, VALVES AND DEFLECTORS
    - AIR HOSE REEL AND ASSOCIATED PLUMBING.
    - ALL 8 FOOT FLUORESCENT LIGHT FIXTURES.
    - ALL 4 FOOT FLUORESCENT LIGHT FIXTURES.
    - 2 LARGE OVERHEAD INCANDESCENT LIGHT FIXTURES.
    - ALL 4 OVERHEAD GARAGE DOORS.
    - ALL 3 GARAGE DOOR OPENERS.
    - ALL INTERIOR AND EXTERIOR WALKWAY DOORS.
    - 1 EYEWASH STATION (FOR PARTS).
    - ALL WINDOWS, UNLESS THEY CANNOT BE REMOVED WITHOUT BREAKAGE.
    - WOOD STORAGE SHELVES AND WORK BENCH.
    - EXHAUST VENTS, WIRING AND PLUMBING FOR PRESSURE WASHER.
    - ALL PLUMBING AND WIRING FOR COMPRESSOR.
    - HOT WATER TANK.
    - 150 AMP BREAKER PANEL, BREAKERS AND METER BASE.
    - ALL ELECTRIC BASEBOARD HEATERS.
    - OUTSIDE FLOOD LIGHT.
    - TV AND STATE RADIO ANTENNA.
    - STAIRCASE TO UPPER STORAGE AREA.
    - 8 INCH TROLLEY CHAIN HOIST "I" BEAM.

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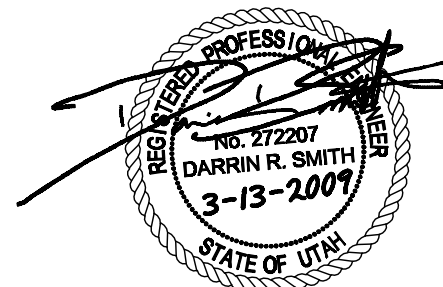
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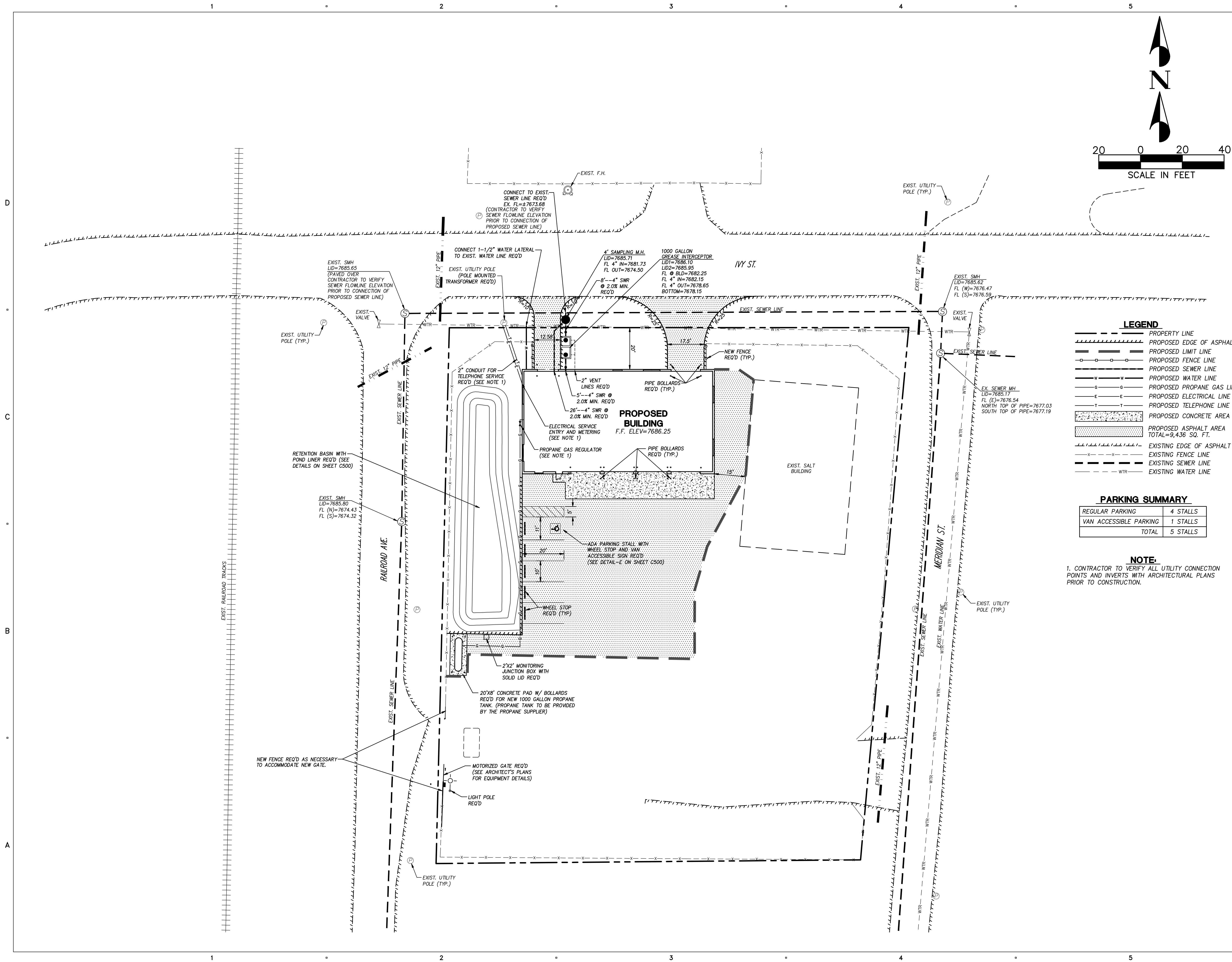
ISSUE		
	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL
MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08300900
DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
PEPG PROJECT NO:		6600.0818
DRAWN BY:		BCB
CHECKED BY:		DRS
SCALE:		1"=20'
DATE:		MARCH, 2009

SHEET TITLE

**DEMOLITION  
PLAN**

**C100**





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**LIPOT**  
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Professional Engineer  
DARRIN R. SMITH  
3-13-2009  
STATE OF UTAH

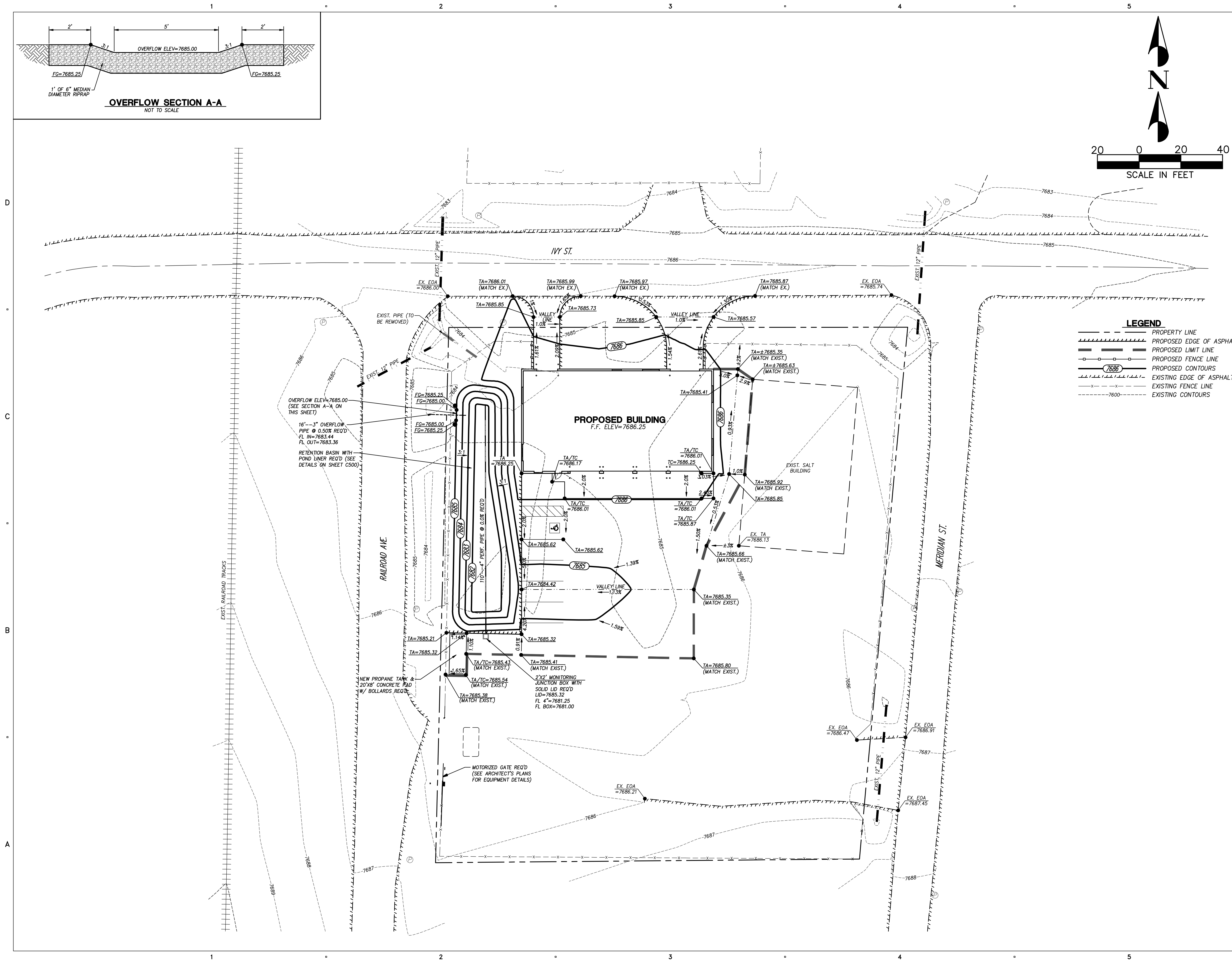
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DRAWN BY:		BCB
CHECKED BY:		DRS
SCALE:		1"=20'
DATE:		MARCH, 2009

SHEET TITLE

**SITE & UTILITY PLAN**

**C200**





CLIENT

**UPOT**  
CONNECTING COMMUNITIES

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160 EAST HWY 96  
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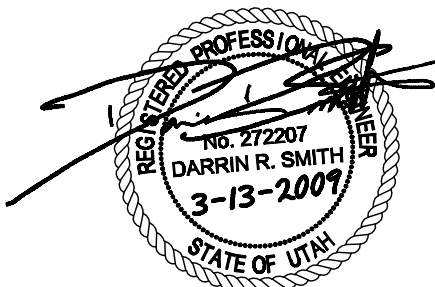
255 Crossroad Square  
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**PEPG ENGINEERING, L.L.C.**

8805 S. SANDY PARKWAY • SANDY, UT 84070  
PHONE: (801) 562-2521 • FAX: (801) 562-2551

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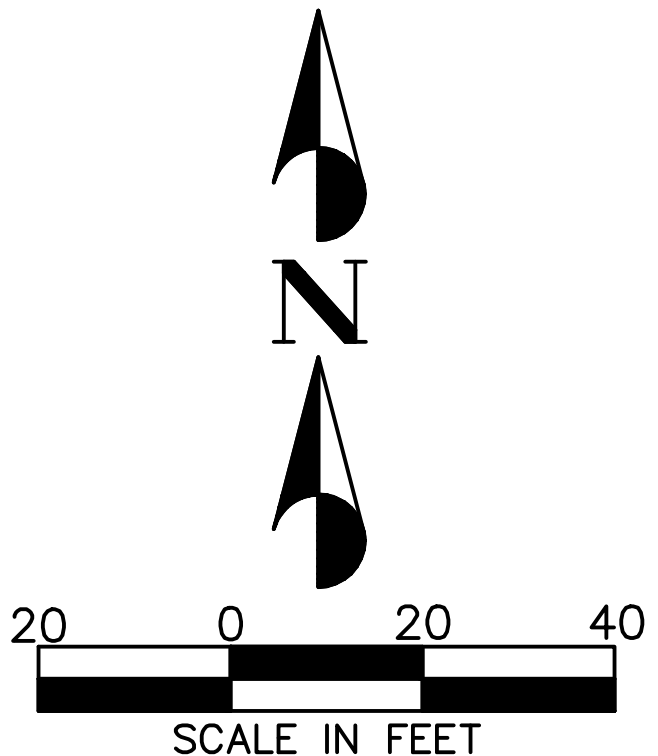
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	1-20-09	90% REVIEW SUBMITTAL
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DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
PEPG PROJECT NO:		6600.0818
DRAWN BY:		BCB
CHECKED BY:		DRS
SCALE:		1"=20'
DATE:		MARCH, 2009

SHEET TITLE

GRADING  
PLAN

C300





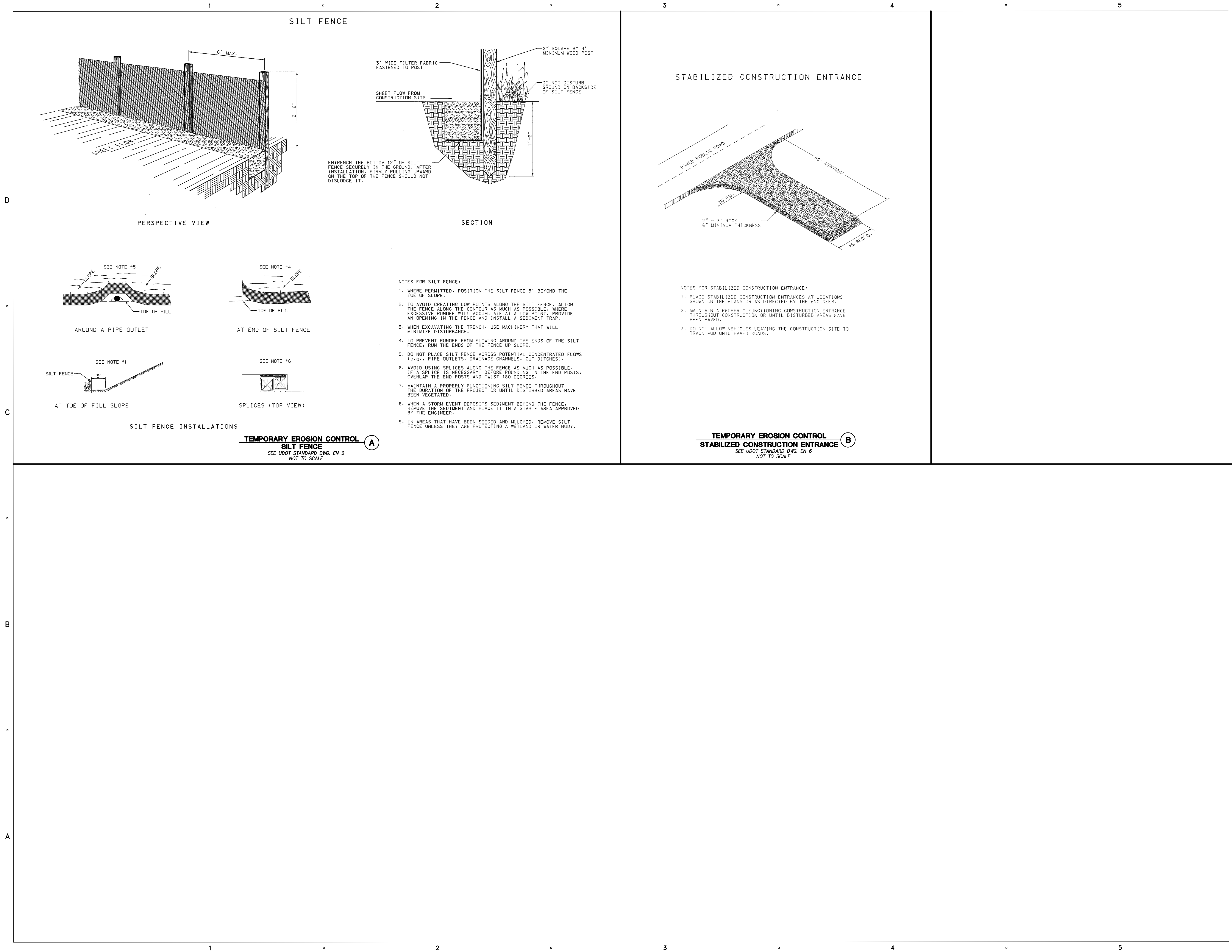
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DRAWN BY:	BCB	
CHECKED BY:	DRS	
SCALE:	1"=20'	
DATE:	MARCH, 2009	

# C400





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STATION #4435A  
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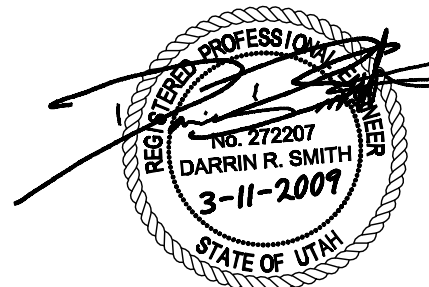
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ISSUE

	2-09	CONSTRUCITON DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
DFCM PROJECT NO: 08300900		
DFCM CONTRACT NO: 97236		
ARCHIPLEX PROJECT NO: 0837.01		
PEPG PROJECT NO: 6600.0818		
DRAWN BY: BCB		
CHECKED BY: DRS		
SCALE: NOT TO SCALE		
DATE: MARCH, 2009		

SHEET TITLE

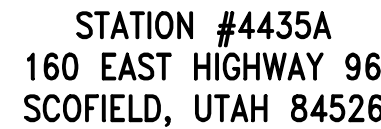
EROSION  
CONTROL  
DETAILS

C401





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**ARCHIIPLEX**  
GROUP

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- ## GENERAL NOTES

1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
2. DO NOT SCALE DRAWINGS.
3. SEE CIVIL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
4. PROVIDE BACKING BEHIND ALL SURFACE MOUNTED EQUIPMENT AND/OR FIXTURES PER DETAIL C2/AE401
5. SEE SHEET C1/AE501 FOR WALL TYPES.
6. TWO BOLLARDS REQUIRED PER SECTIONAL DOOR JAMB. ALIGN WITH DOOR JAMB, SEE DETAILS A1 & A2/AE402.
7. SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION/CONTROL JOINT LOCATIONS IN CONCRETE SLAB.
8. ALL DIMENSIONS ARE TO FACE OF WALL, UNLESS NOTED OTHERWISE.
9. PROVIDE 03053.A0 AT ALL CONCRETE CURBS, PIERS, SLABS, STEM WALL ETC. U.N.O.
10. PROVIDE 03054.A0 OVER ENTIRE FLOOR SLAB AT ROOMS 101 & 104.
11. SEE SHEET AE402 FOR ALL SIGNAGE DETAILS

## PROFESSIONAL SEAL



	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
------	------	-------------

DFCM PROJECT NO: 0830090

DFCM CONTRACT NO: 9723

ARCHIPLEX PROJECT NO: 0837.0

DRAWN BY: A. PHILLIP

CHECKED BY: R. STANISLA  
SCALE: 1/8" = 1'-0"

DATE: FEBRUARY, 200

## SHEET TITLE

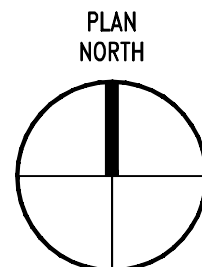
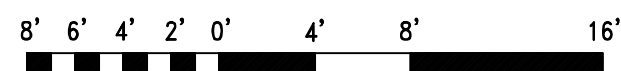
# FLOOR PLAN

# AE101



AE101	REF.
-------	------

SCALE: 1/8" = 1'-0"



REFLECTED CEILING  
PLAN LEGEND

TYPE A	EXPOSED STRUCTURE - PAINTED
TYPE B	5/8" GYPSUM BOARD ON METAL SUSPENSION SYSTEM - PAINTED
TYPE C	2' X 4' LAY - IN CEILING GRID SYSTEM WITH ACOUSTICAL PANELS

## GENERAL NOTES

1. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL LIGHTING AND DIFFUSER INFORMATION.
2. CEILING HEIGHT SHOWN IN ROOM TAG INDICATES HEIGHT OF DOMINANT CEILING FINISH. SEE NOTES FOR ADDITIONAL CEILING FINISH INFORMATION.
3. SEE DETAIL A1 & B2/AE501 FOR SEISMIC BRACING DETAIL.
4. ROOF STRUCTURE NOT SHOWN FOR CLARITY.
5. COORDINATE LOCATION OF OVERHEAD DOOR TRACKS WITH LIGHTING FIXTURES TO INSURE PROPER OPERATION OF OVERHEAD DOORS.

## KEYNOTES

05120.D1	TUBE STEEL COLUMN - SEE STRUCTURAL
07210.C1	RIGID INSULATION (CONTINUOUSLY ADHERED TO CMU) W/ FOIL FACED VAPOR BARRIER TOWARDS INTERIOR (R-VALUE)
07410.T1	STANDING SEAM METAL CANOPY
08360.B0	3" HEAVY DUTY OVERHEAD SECTIONAL DOOR TRACK
08521.B0	FIXED VINYL WINDOW
08521.C0	VINYL WINDOW W/SLIDING GLASS PANEL
14620.A0	TROLLEY HOIST (SIZE) SEE STRUCTURAL
15491.B0	OVERHEAD LUBE REELS
15491.C0	OVERHEAD HOSE REELS
15600.A0	NATURAL GAS RADIANT HEATING SYSTEM
15838.A1	EXHAUST FAN - SEE MECHANICAL
15887.A1	LOUVER WITH BIRD SCREEN - SEE MECHANICAL
16510.A0	INTERIOR LIGHTS
16520.B1	EXTERIOR WALL MOUNTED LIGHTS
16520.B2	EXTERIOR WALL MOUNTED FLOOD LIGHTS

## CEILING SYMBOLS

PAINTED GYP. BD. CEILING

2' x 4' FLUORESCENT LIGHT FIXTURE, SEE ELECTRICAL DRAWINGS FOR TYPE.

1' x 4' FLUORESCENT LIGHT FIXTURE

1' x 8' FLUORESCENT LIGHT FIXTURE

RETURN AIR GRILLE - HORIZONTAL  
(SEE MECH. DRAWINGS)

SUPPLY AIR GRILLE - HORIZONTAL  
(SEE MECH. DRAWINGS)

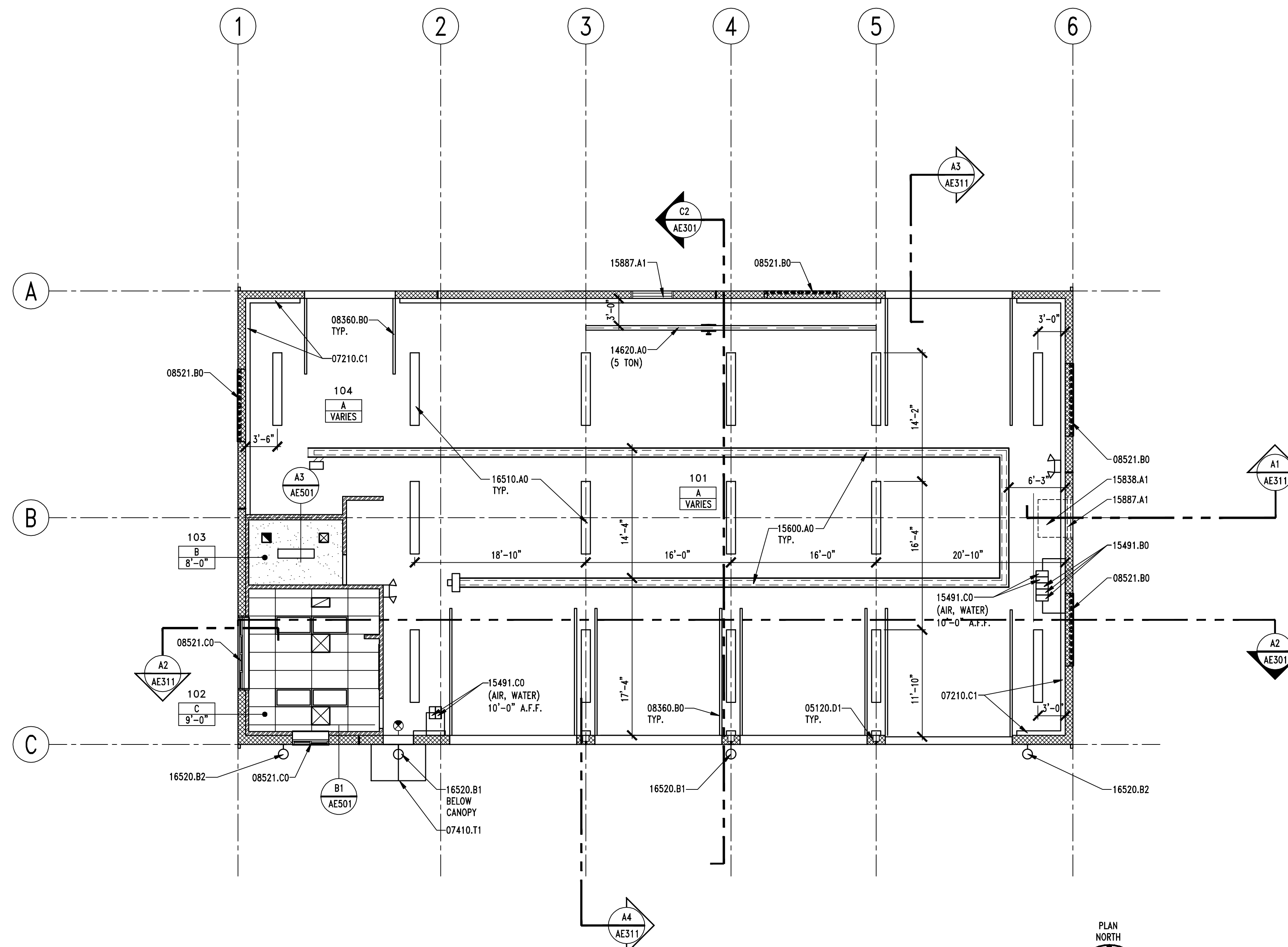
RADIANT HEAT SYSTEM  
(SEE MECH. DRAWINGS)

EXHAUST FAN  
(SEE MECH. DRAWINGS)

EXIT SIGN

EMERGENCY FLOOD LIGHTS

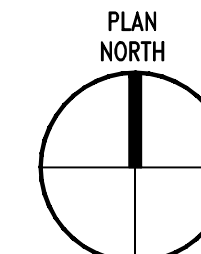
EXTERIOR WALL MOUNTED LIGHTS



A1 | FIRST FLOOR REFLECTED CEILING PLAN

AE121	REF.
-------	------

SCALE: 1/8" = 1'-0"



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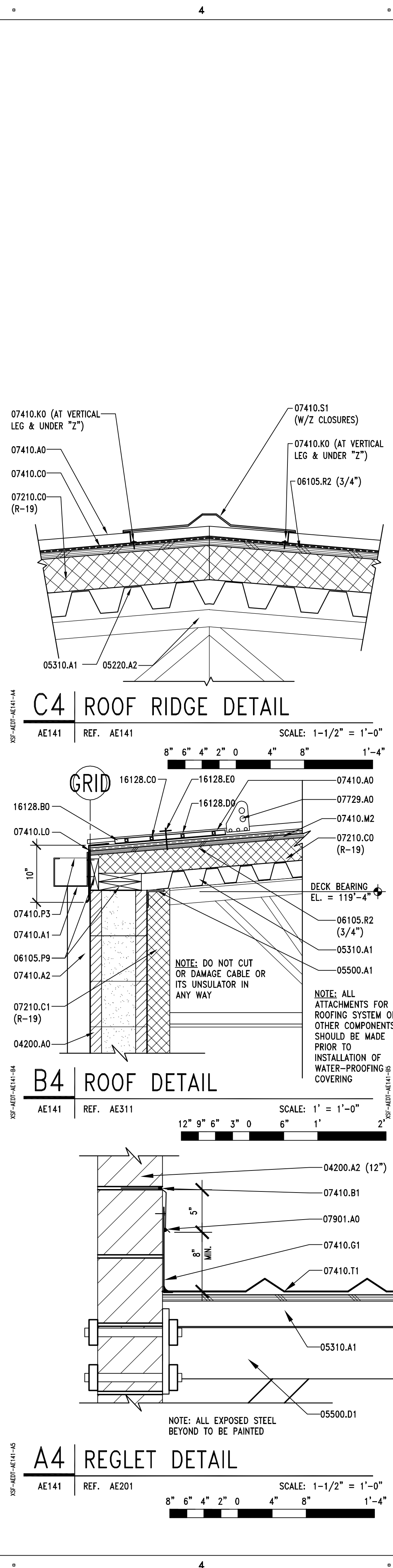
MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08300900
DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
DRAWN BY:		A. PHILLIPS
CHECKED BY:		R. STANISLAW
SCALE:		1/8" = 1'-0"
DATE:		FEBRUARY, 2009

**SHEET TITLE**

## REFLECTED CEILING PLAN

AE121





07410.A0

07410.M2 OR  
07410.C0 - SEE  
ROOF PLAN

06105.R2  
(3/4")

07210.C0  
(R-19)

05310.A1

07210.C1  
(R-19)

04200.A2  
(10")

GRID

07410.P2

06105.P9

05500.A1

1'-6"

# B5 | ROOF DETAIL

AE141 REF. AE311

SCALE: 1' = 1'-0"

12" 9" 6" 3" 0 6" 1'

06105.R2 (3/4")

07410.G1

1'-4" MAX.

06105.P1

5

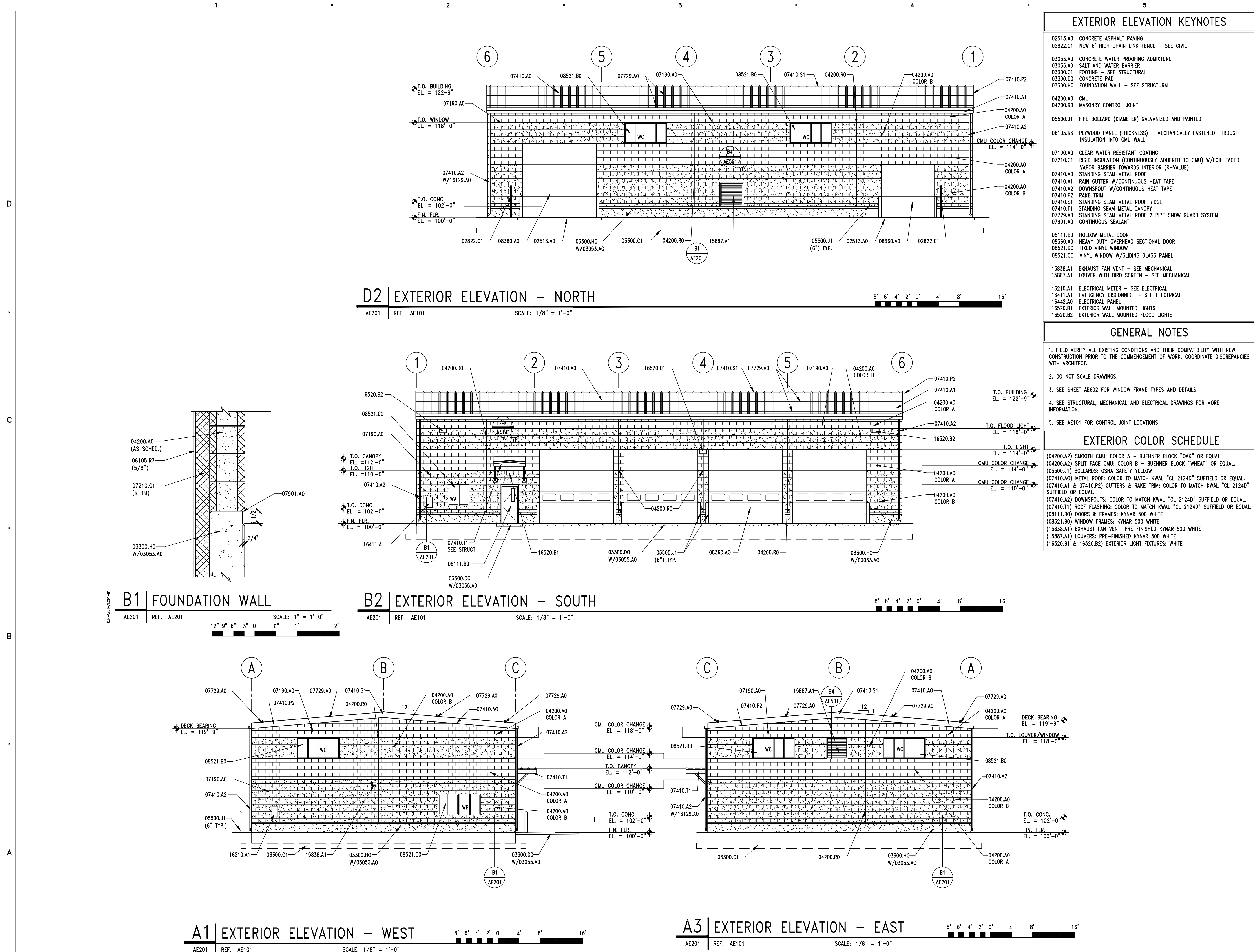
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DFCM PROJECT NO: 08300900		
DFCM CONTRACT NO:		97236
ARCHIPEX PROJECT NO:		0837.01
DRAWN BY:		A. PHILLIPS
CHECKED BY:		R. STANISLAW
SCALE:		AS SHOWN
DATE:		FEBRUARY, 2009

SHEET TITLE

ROOF PLAN

AE141



### EXTERIOR ELEVATION KEYNOTES

- 02513.A0 CONCRETE ASPHALT PAVING  
02822.C1 NEW 6' HIGH CHAIN LINK FENCE - SEE CIVIL
- 03053.A0 CONCRETE WATER PROOFING ADMIXTURE  
03055.A0 SALT AND WATER BARRIER  
03300.C1 FOOTING - SEE STRUCTURAL  
03300.D0 CONCRETE PAD  
03300.H0 FOUNDATION WALL - SEE STRUCTURAL
- 04200.A0 CMU  
04200.R0 MASONRY CONTROL JOINT
- 05500.J1 PIPE BOLLARD (DIAMETER) GALVANIZED AND PAINTED
- 06105.R3 PLYWOOD PANEL (THICKNESS) - MECHANICALLY FASTENED THROUGH INSULATION INTO CMU WALL
- 07190.A0 CLEAR WATER RESISTANT COATING  
07210.C1 RIGID INSULATION (CONTINUOUSLY ADHERED TO CMU) W/FOIL FACED VAPOR BARRIER TOWARDS INTERIOR (R-VALUE)  
07410.A0 STANDING SEAM METAL ROOF  
07410.A1 RAIN GUTTER W/CONTINUOUS HEAT TAPE  
07410.A2 DOWNSPOUT W/CONTINUOUS HEAT TAPE  
07410.P2 RAKE TRIM  
07410.S1 STANDING SEAM METAL ROOF RIDGE  
07410.T1 STANDING SEAM METAL CANOPY  
07729.A0 STANDING SEAM METAL ROOF 2 PIPE SNOW GUARD SYSTEM  
07901.A0 CONTINUOUS SEALANT
- 08111.B0 HOLLOW METAL DOOR  
08360.A0 HEAVY DUTY OVERHEAD SECTIONAL DOOR  
08521.B0 FIXED VINYL WINDOW  
08521.C0 VINYL WINDOW W/SLIDING GLASS PANEL
- 15838.A1 EXHAUST FAN VENT - SEE MECHANICAL  
15887.A1 LOUVER WITH BIRD SCREEN - SEE MECHANICAL
- 16210.A1 ELECTRICAL METER - SEE ELECTRICAL  
16411.A1 EMERGENCY DISCONNECT - SEE ELECTRICAL  
16442.A0 ELECTRICAL PANEL  
16520.B1 EXTERIOR WALL MOUNTED LIGHTS  
16520.B2 EXTERIOR WALL MOUNTED FLOOD LIGHTS

### GENERAL NOTES

1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
2. DO NOT SCALE DRAWINGS.
3. SEE SHEET AE602 FOR WINDOW FRAME TYPES AND DETAILS.
4. SEE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
5. SEE AE101 FOR CONTROL JOINT LOCATIONS

### EXTERIOR COLOR SCHEDULE

- (04200.A2) SMOOTH CMU: COLOR A - BUEHNER BLOCK "OAK" OR EQUAL  
(04200.A2) SPLIT FACE CMU: COLOR B - BUEHNER BLOCK "WHEAT" OR EQUAL.  
(05500.J1) BOLLARDS: OSHA SAFETY YELLOW  
(07410.A0) METAL ROOF: COLOR TO MATCH KWAL "CL 2124D" SUFFIELD OR EQUAL  
(07410.A1 & 07410.P2) GUTTERS & RAKE TRIM: COLOR TO MATCH KWAL "CL 2124D" SUFFIELD OR EQUAL  
(07410.A2) DOWNSPOUTS: COLOR TO MATCH KWAL "CL 2124D" SUFFIELD OR EQUAL  
(07410.T1) ROOF FLASHING: COLOR TO MATCH KWAL "CL 2124D" SUFFIELD OR EQUAL  
(08111.B0) DOORS & FRAMES: KYNAR 500 WHITE  
(08521.B0) WINDOW FRAMES: KYNAR 500 WHITE  
(15838.A1) EXHAUST FAN VENT: PRE-FINISHED KYNAR 500 WHITE  
(15887.A1) LOUVERS: PRE-FINISHED KYNAR 500 WHITE  
(16520.B1 & 16520.B2) EXTERIOR LIGHT FIXTURES: WHITE

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DFCM CONTRACT NO:	97236
ARCHIPLEX PROJECT NO:	0837.01
DRAWN BY:	A. PHILLIPS
CHECKED BY:	R. STANISLAW
SCALE:	1/8"=1'-0"
DATE:	FEBRUARY, 2009

SHEET TITLE

EXTERIOR  
ELEVATIONS

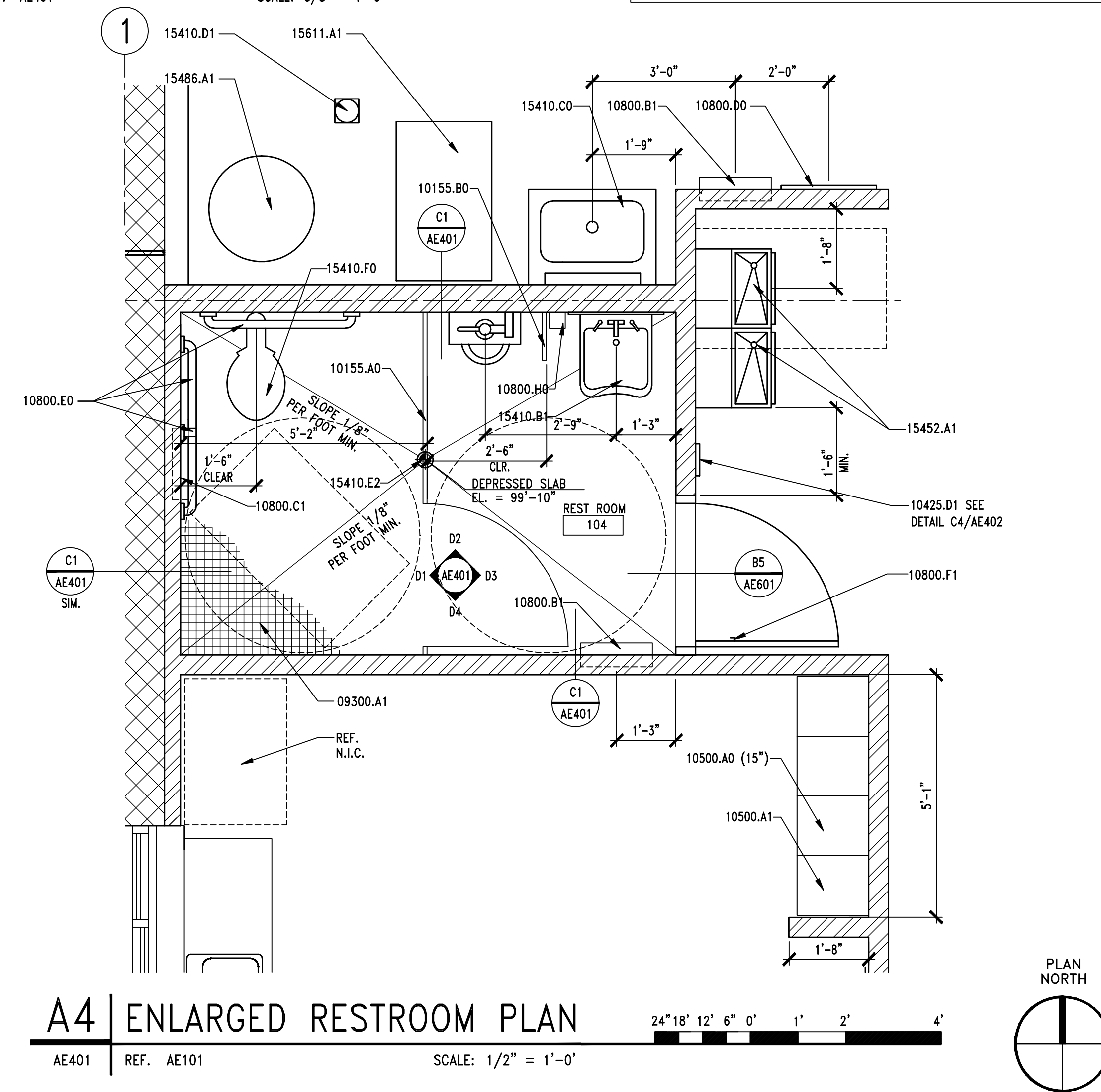
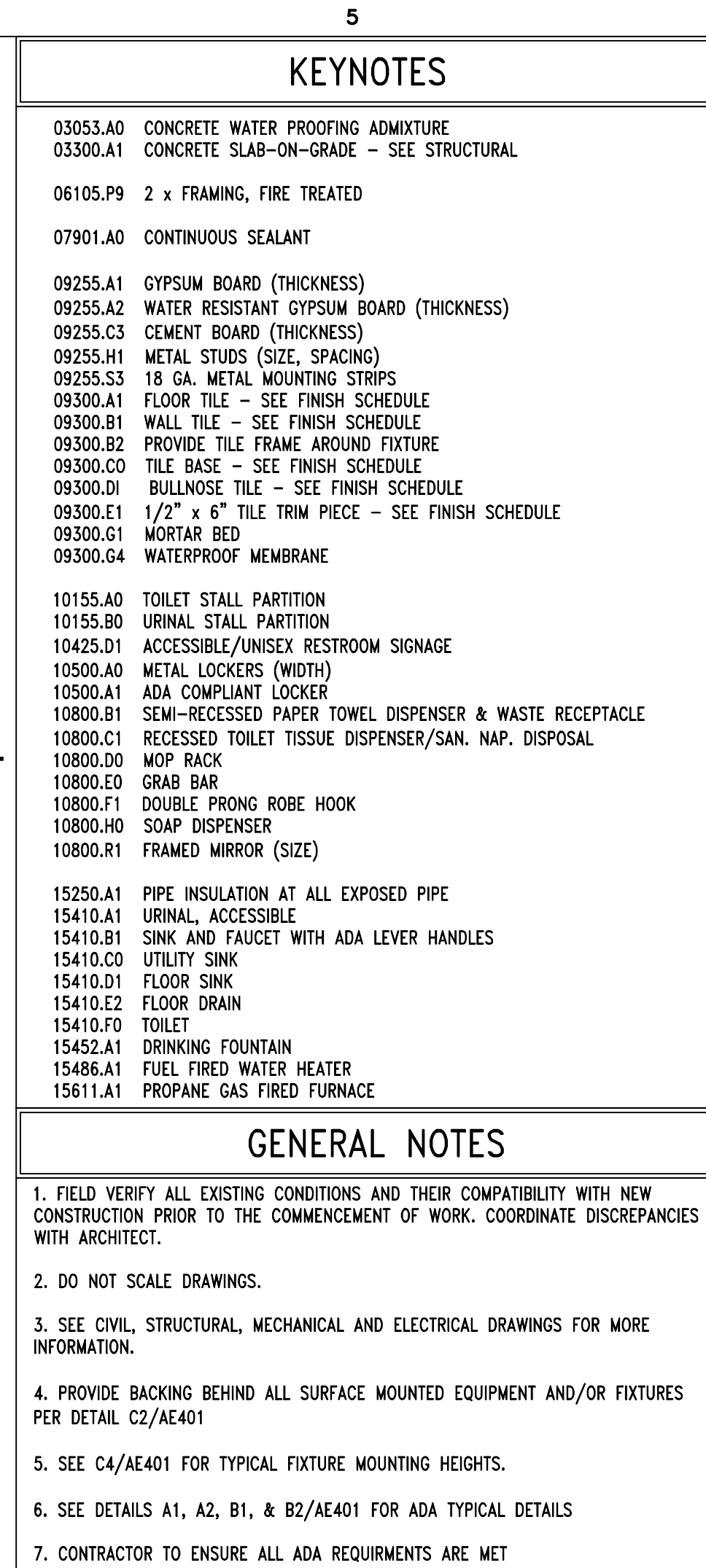
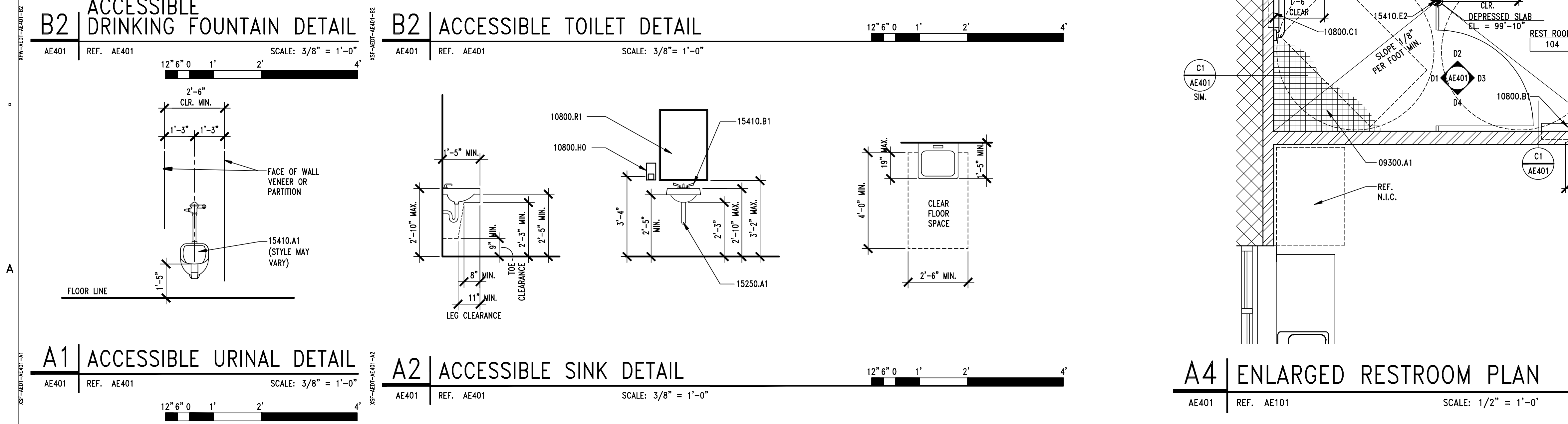
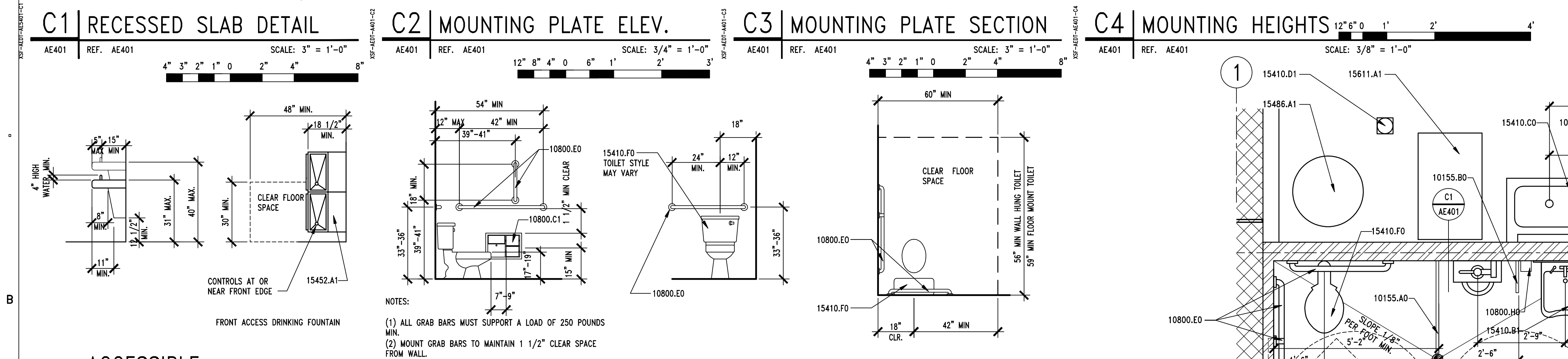
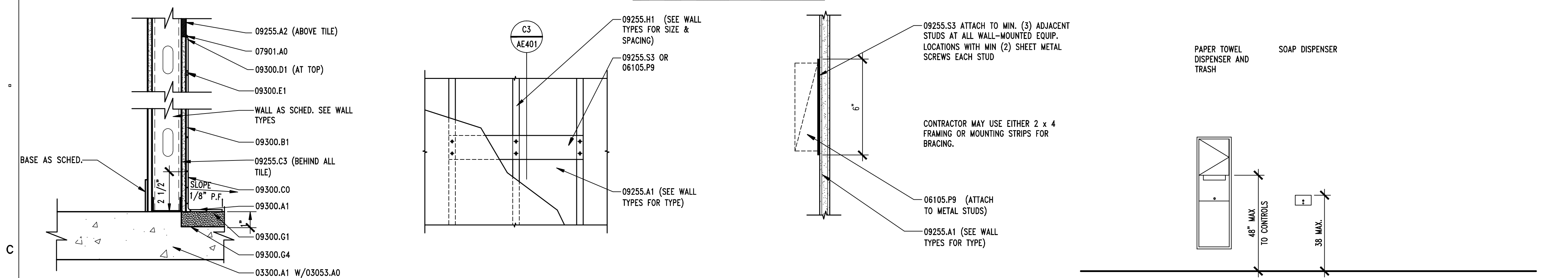
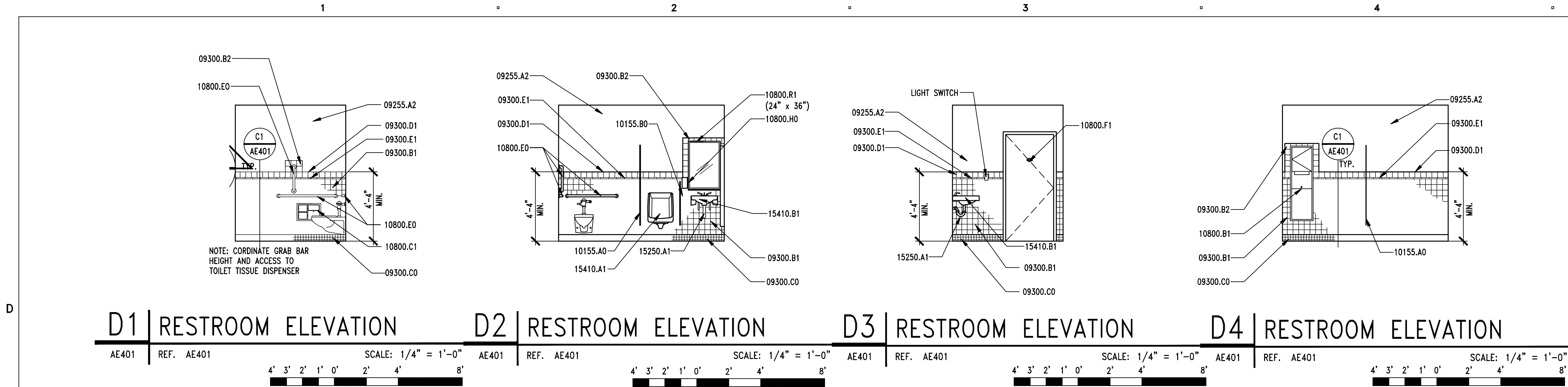
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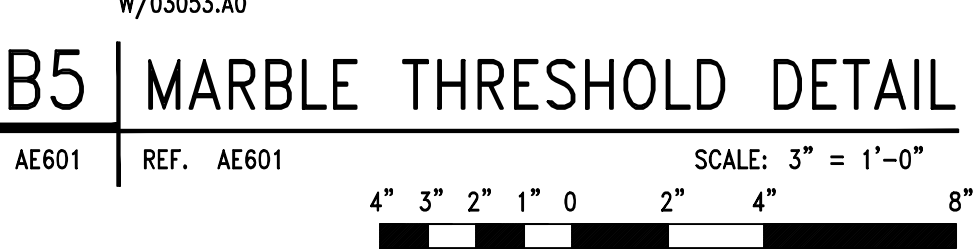
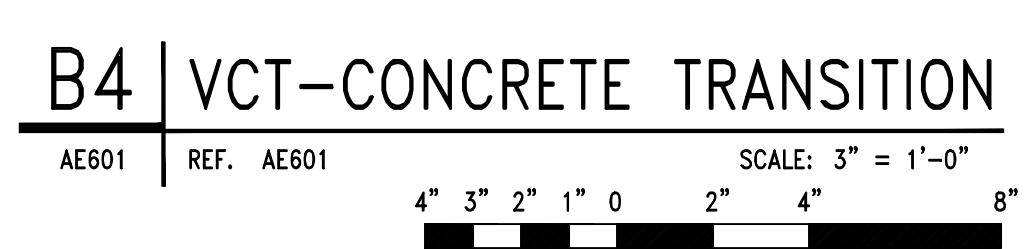
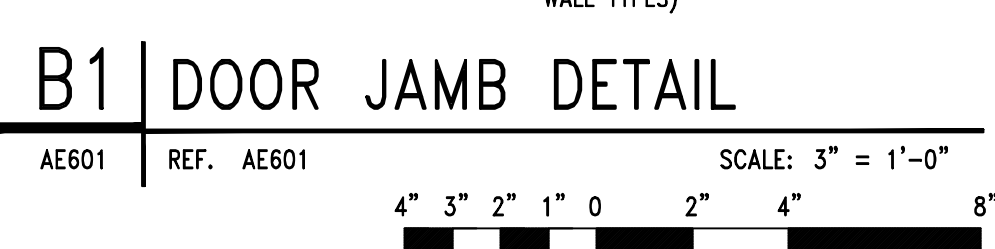
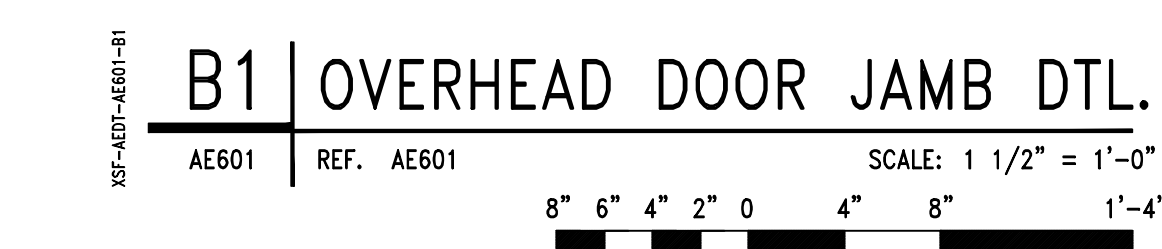
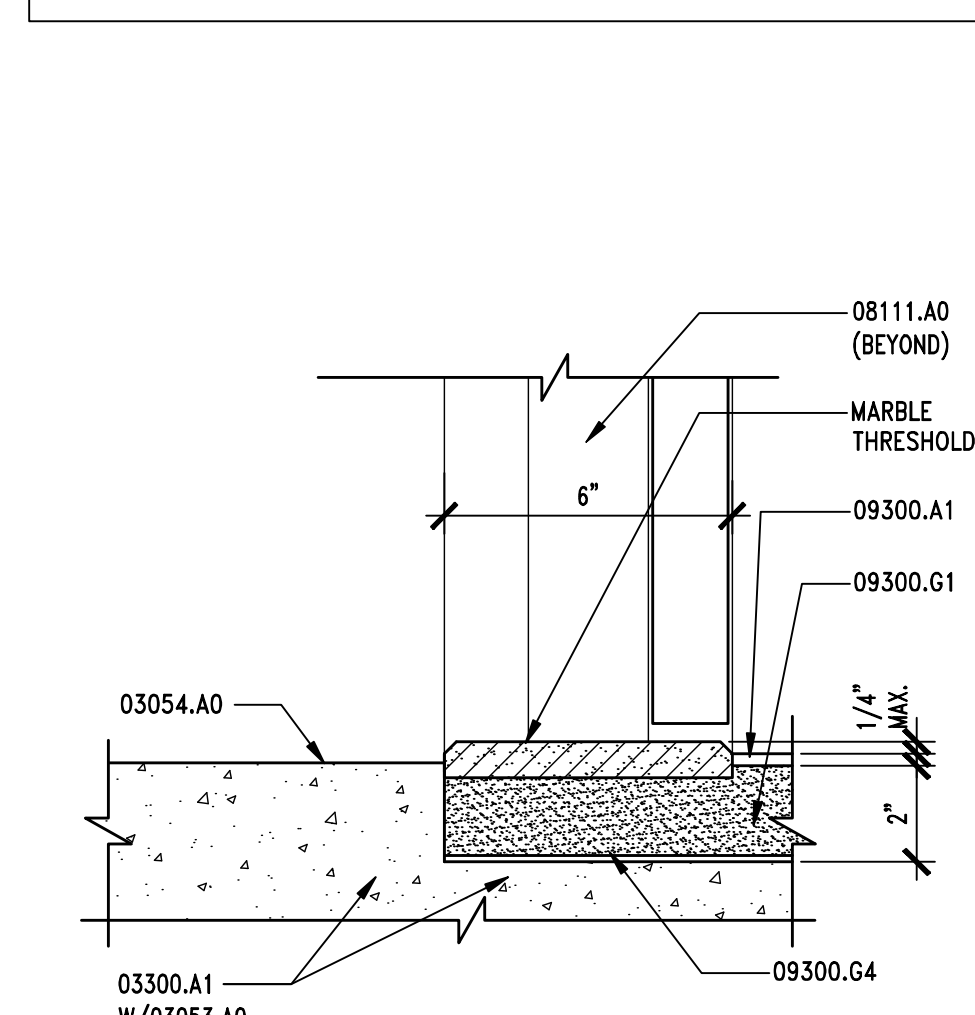
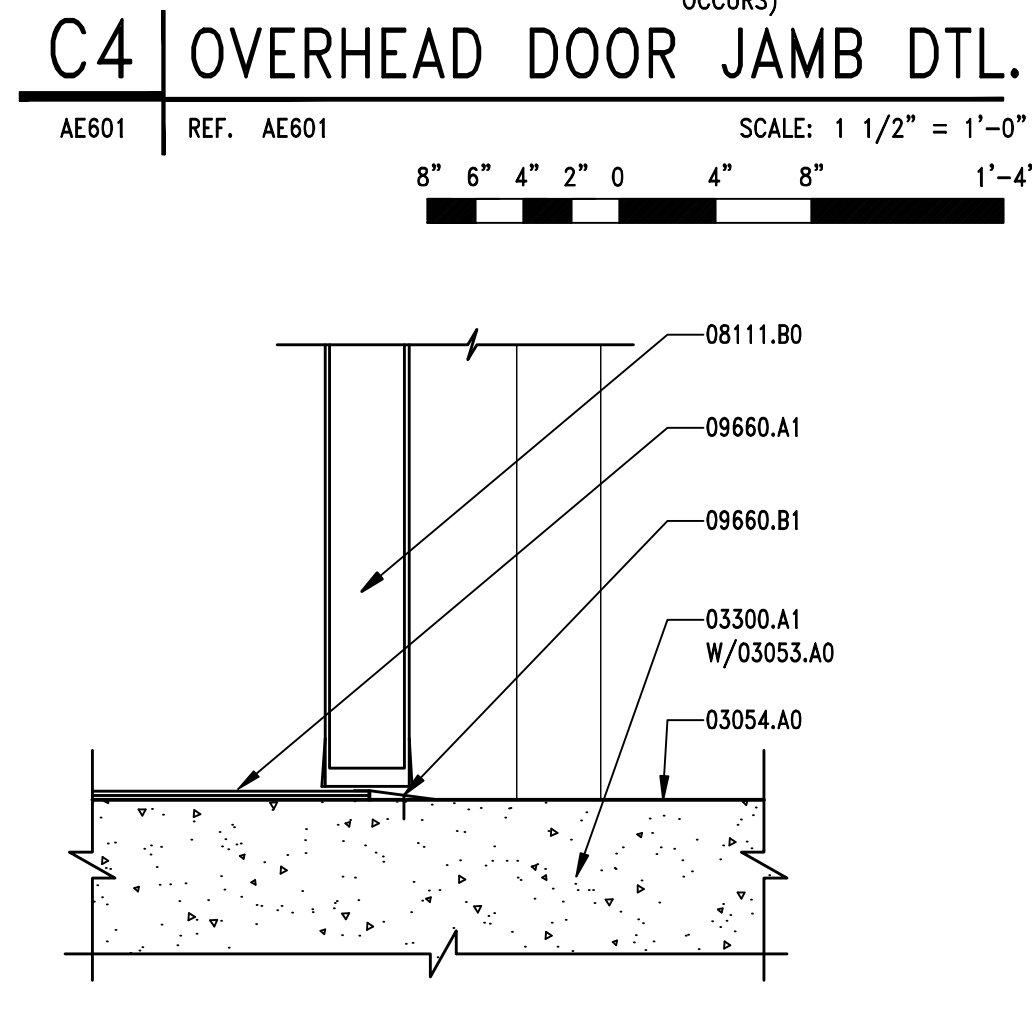
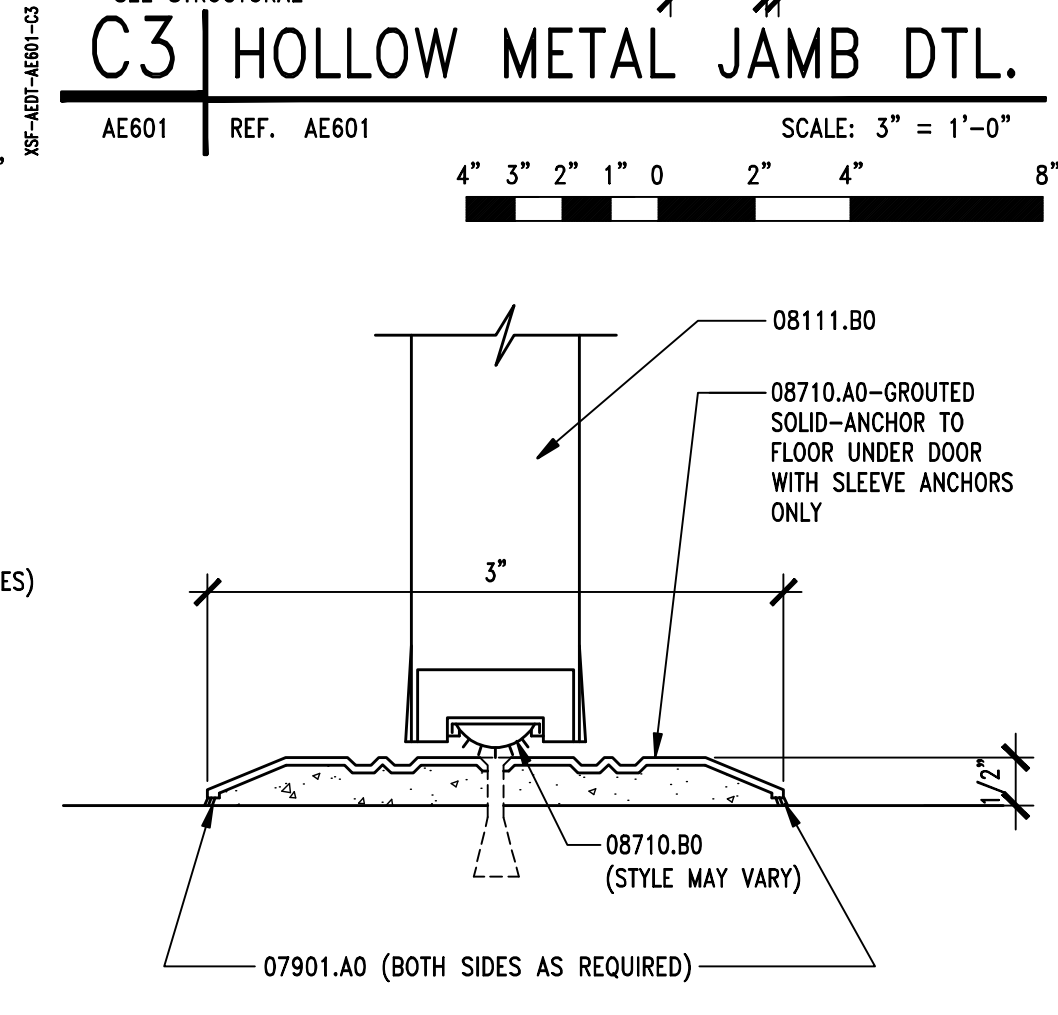
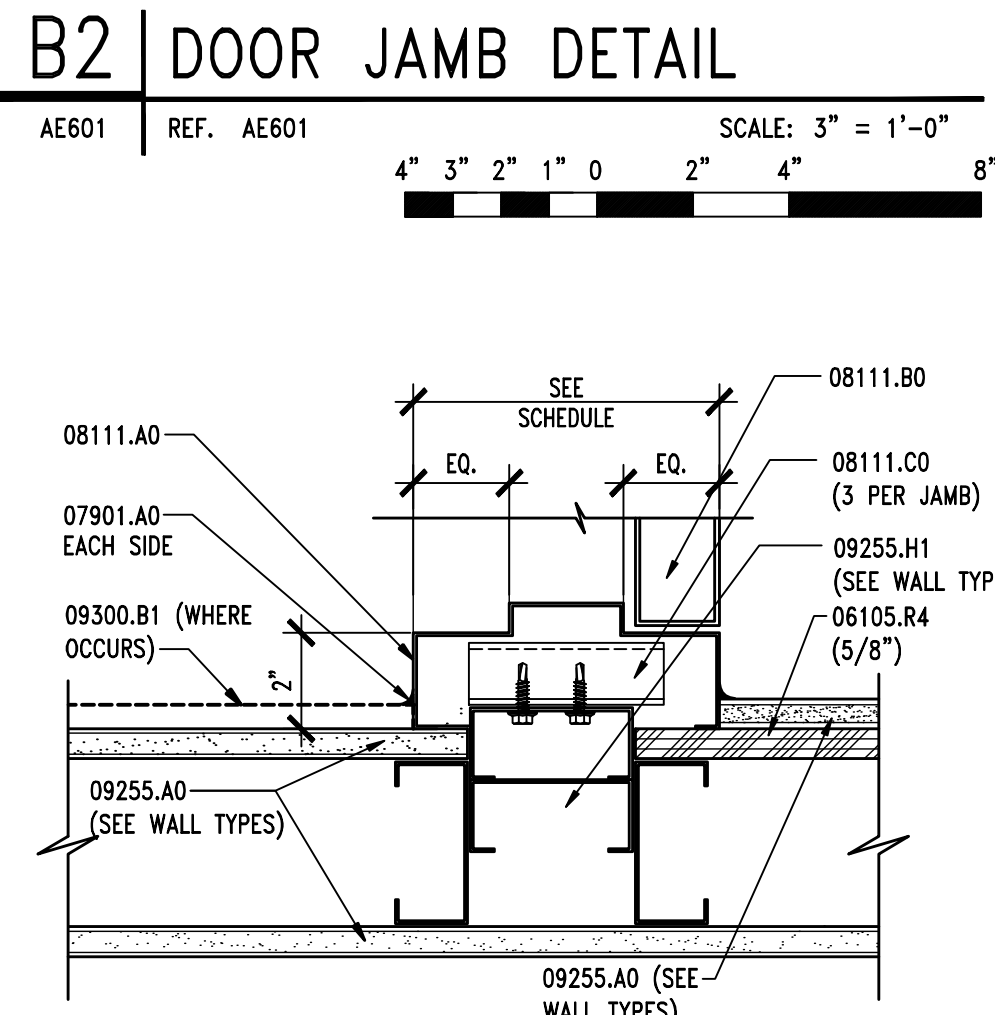
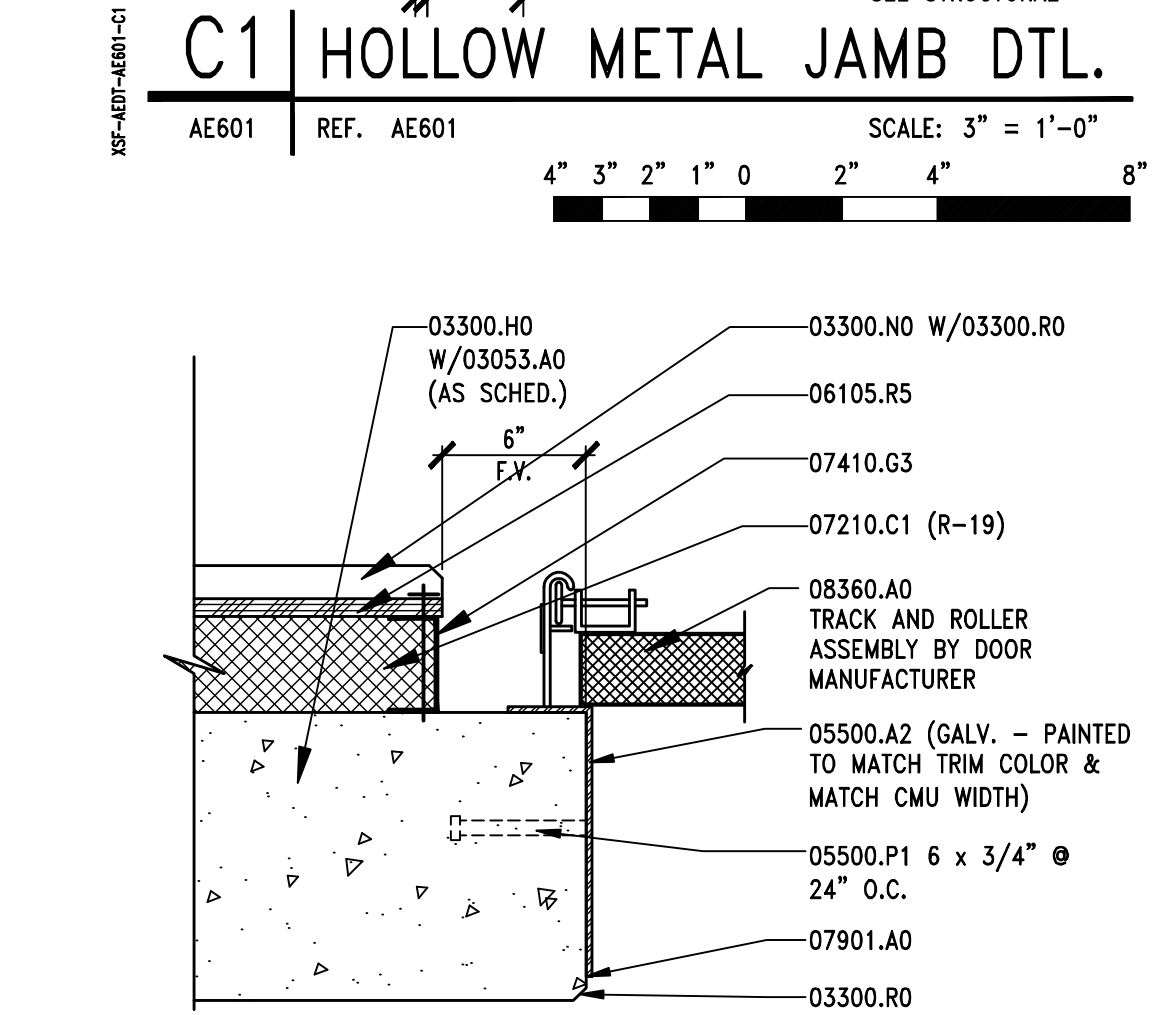
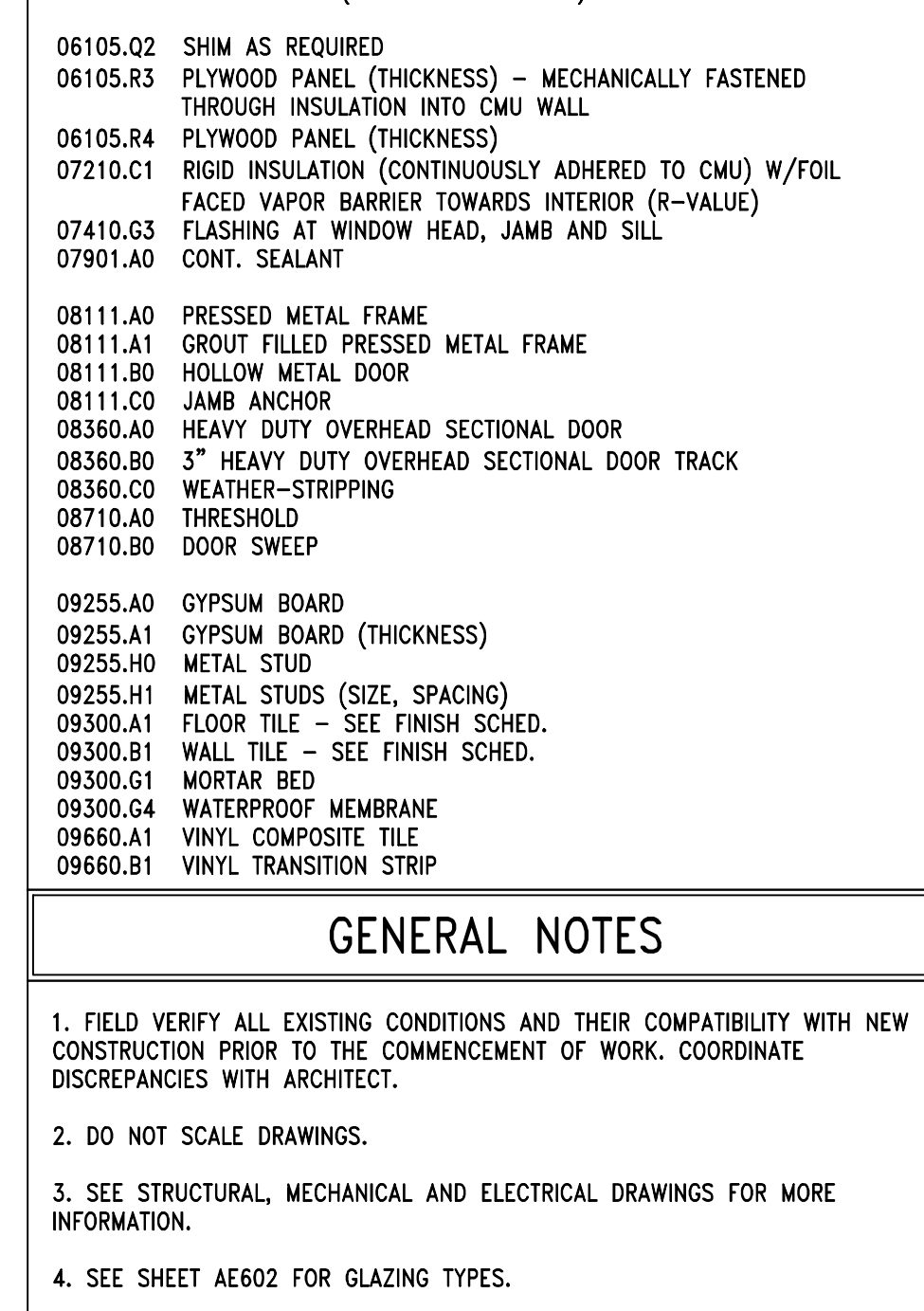
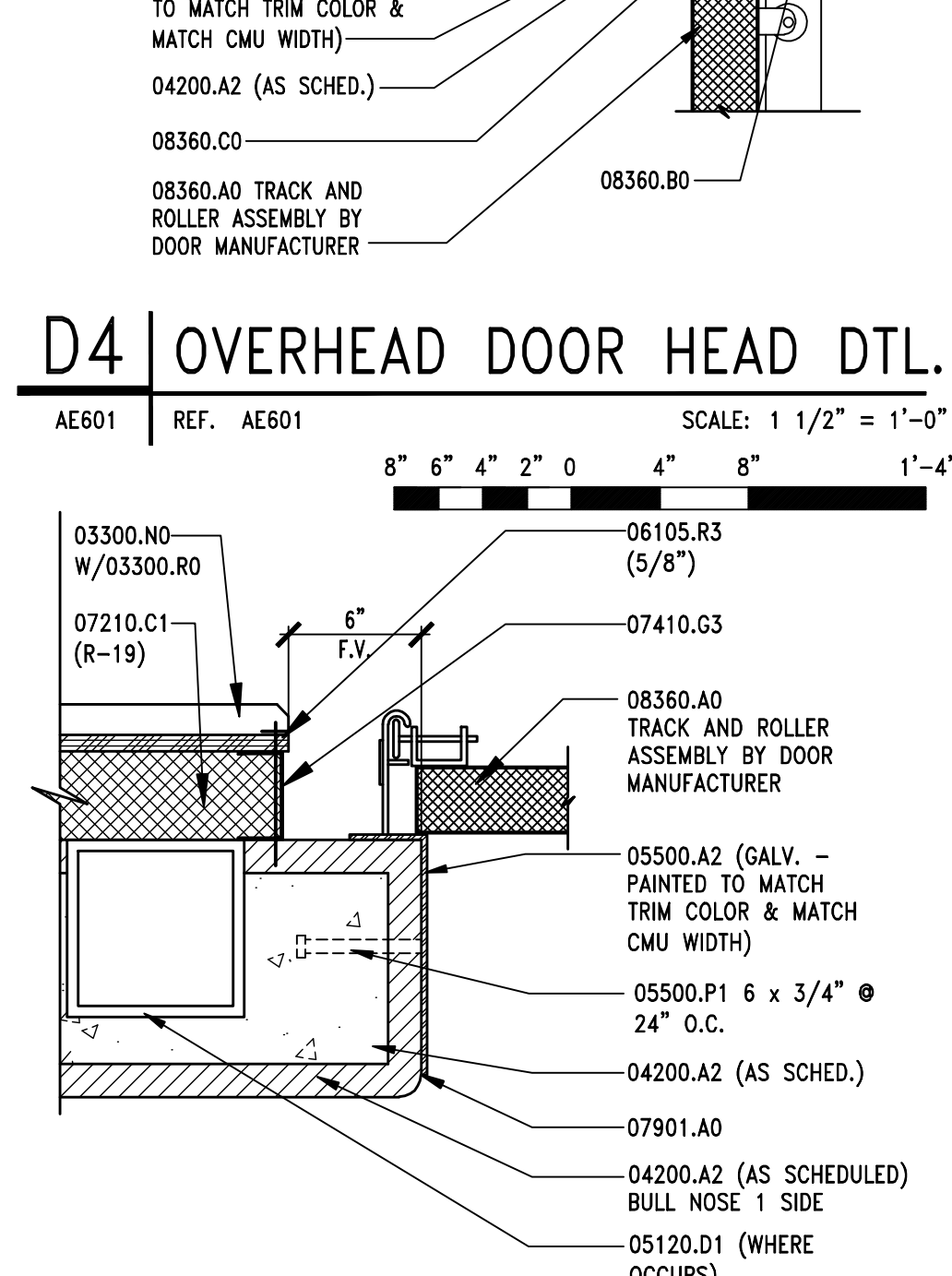
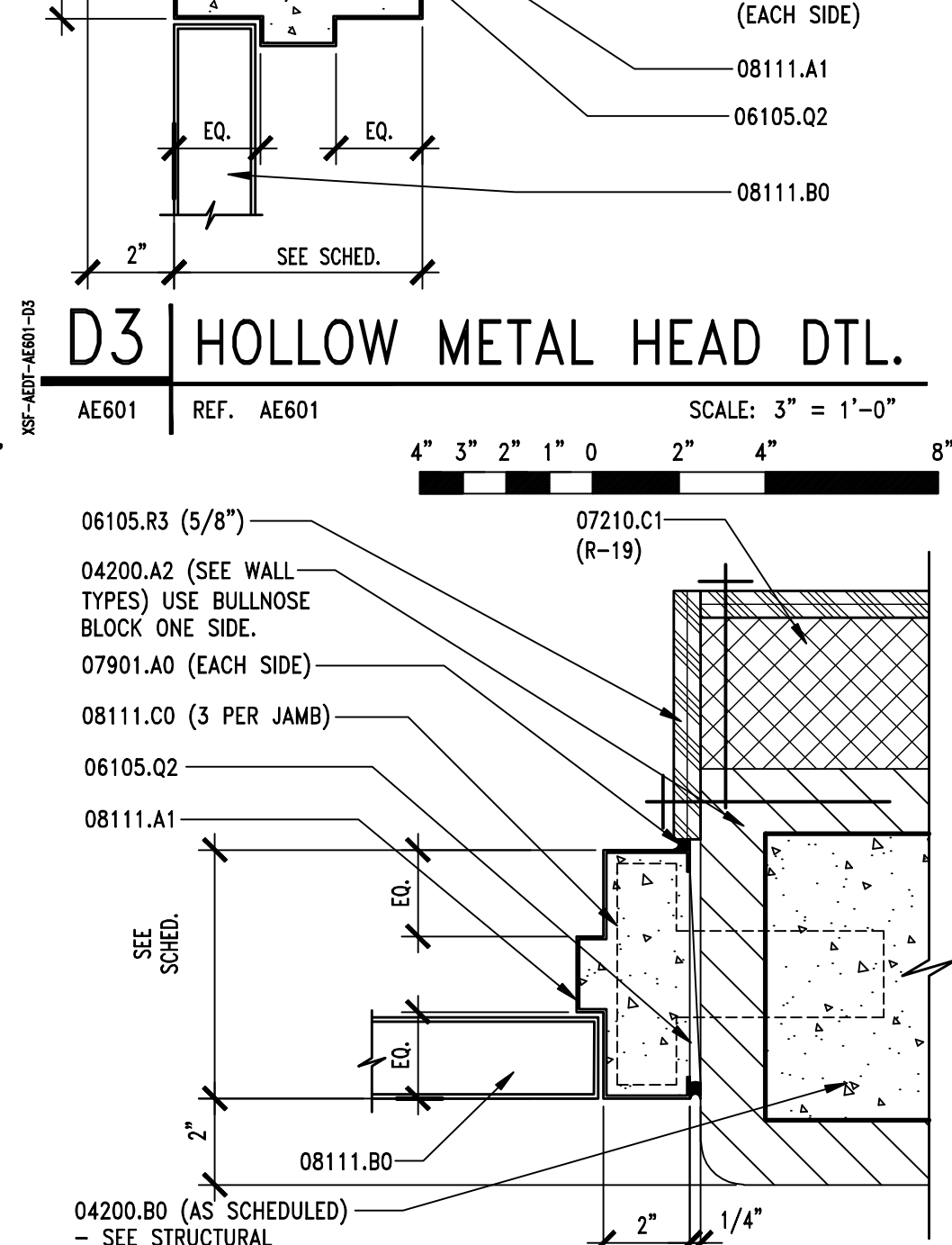
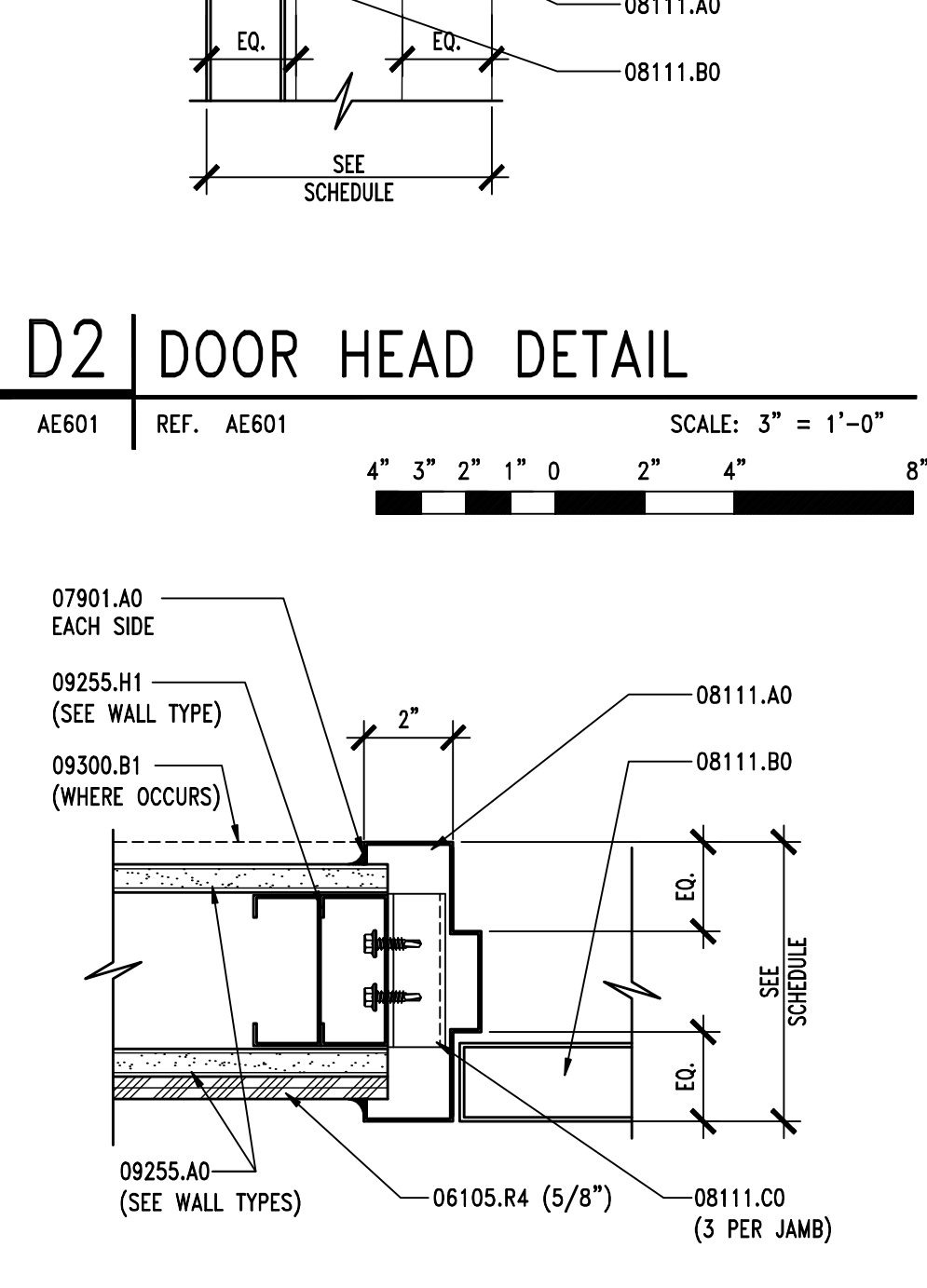
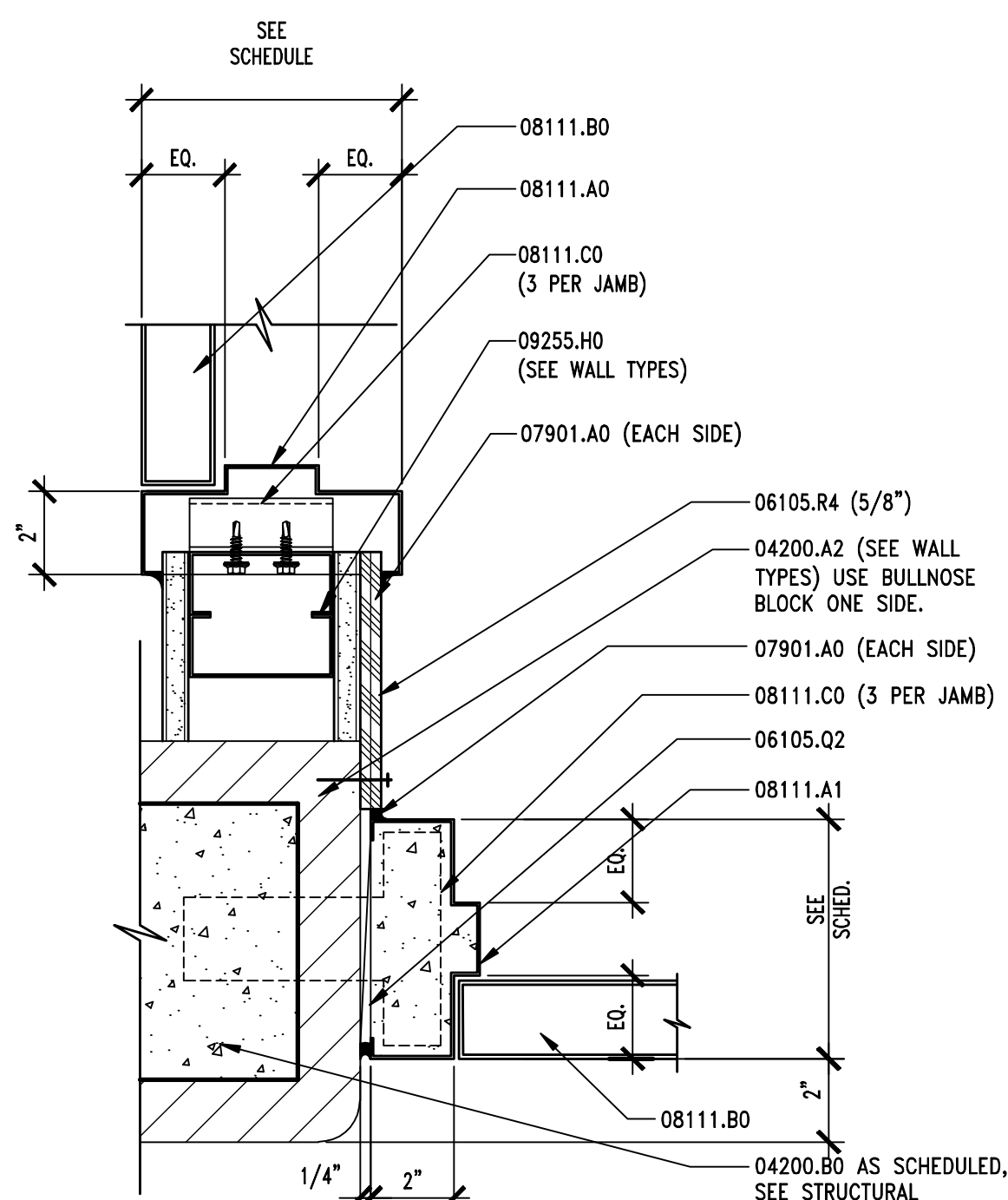






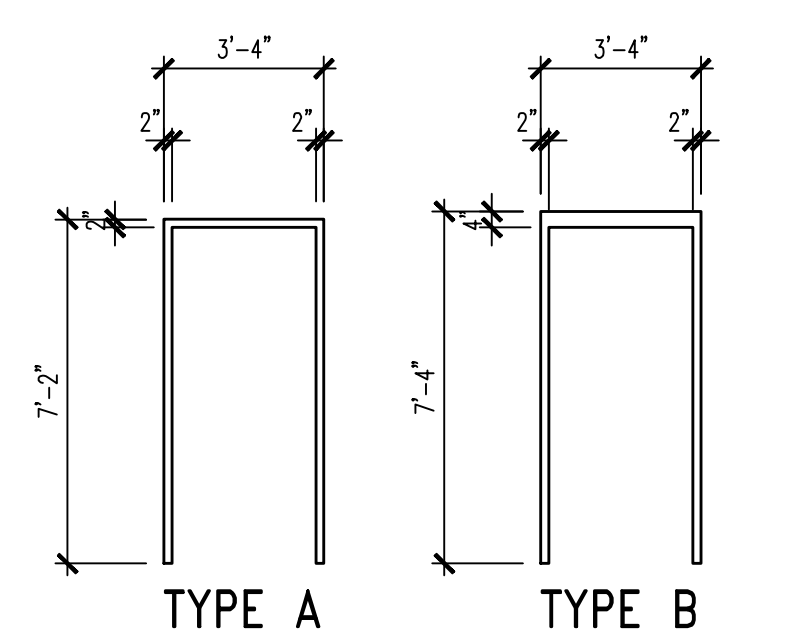
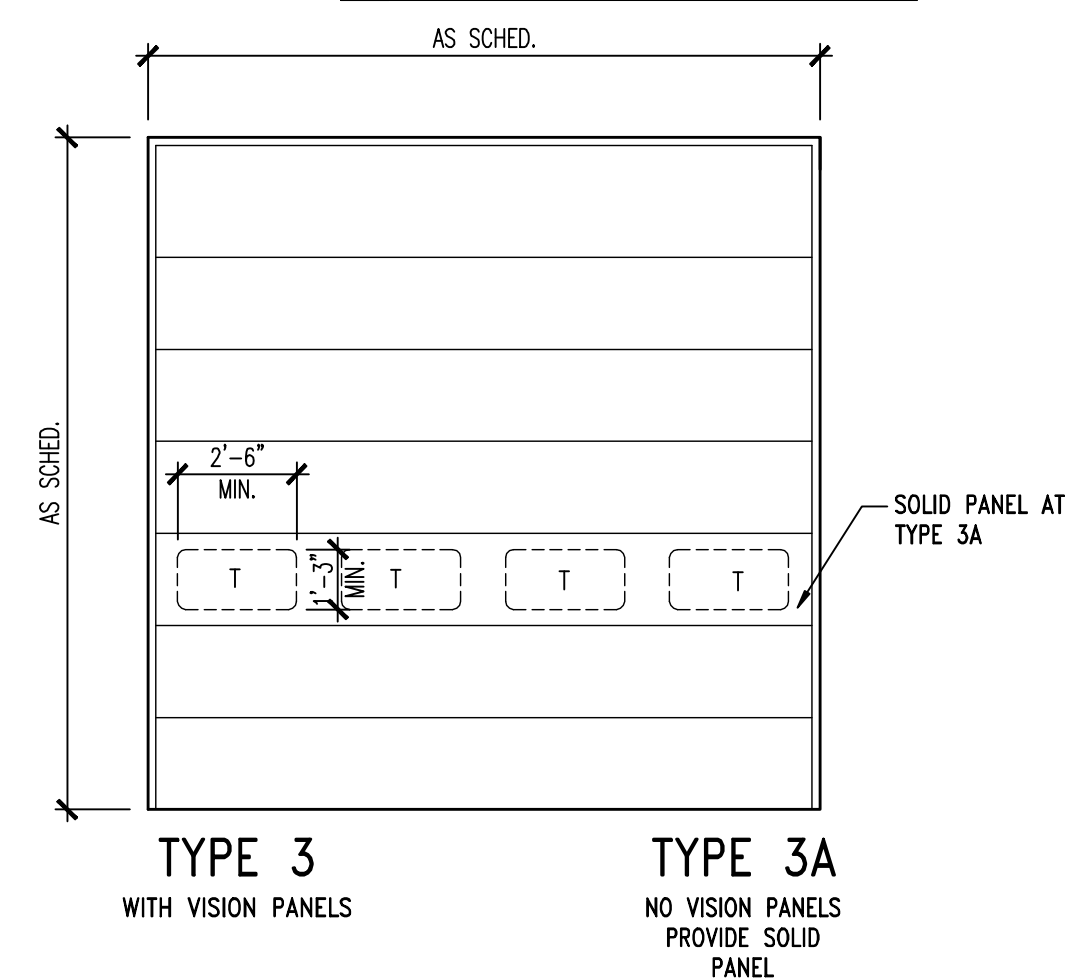
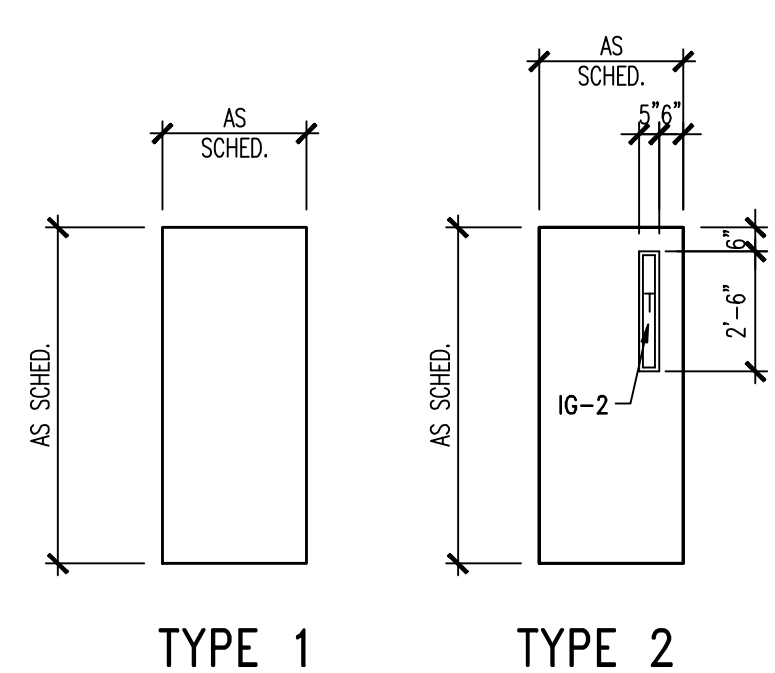






DOOR SCHEDULE																			
		DOORS							FRAMES				DETAILS					REMARKS	
DOOR #	ROOM #	TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL	FINISH	GLASS	TYPE	MATERIAL	THICKNESS	FINISH	HEAD	JAMB	THRESHHOLD	LABEL	HARDWARE		
D101A	101	2	3'-0"	7'-0"	1 3/4"	HM	PT	T	B	HM	6"	PT	D3/AE601	C1 & C3/AE601	B3/AE601	-	-	1	INSULATED
D101B	101	3	14'-0"	14'-0"	-	ST	P. FIN.	T	-	ST	-	G & PT	D4/AE601	B1 & C4/AE601	-	-	-	5	SECTIONAL INSULATED DOOR
D101C	101	3	14'-0"	14'-0"	-	ST	P. FIN.	T	-	ST	-	G & PT	D4/AE601	B1 & C4/AE601	-	-	-	5	SECTIONAL INSULATED DOOR
D101D	101	3	14'-0"	14'-0"	-	ST	P. FIN.	T	-	ST	-	G & PT	D4/AE601	B1 & C4/AE601	-	-	-	5	SECTIONAL INSULATED DOOR
D101E	101	3	14'-0"	14'-0"	-	ST	P. FIN.	T	-	ST	-	G & PT	D4/AE601	B1 & C4/AE601	-	-	-	5	SECTIONAL INSULATED DOOR
D101F	101	3A	14'-0"	14'-0"	-	ST	P. FIN.	T	-	ST	-	G & PT	D4/AE601	B1 & C4/AE601	-	-	-	5	SECTIONAL INSULATED DOOR
D102A	102	2	3'-0"	7'-0"	1 3/4"	HM	PT	T	A	HM	6"	PT	D2/AE601	C1 & C2/AE601	B4/AE601	-	-	2	
D103A	103	1	3'-0"	7'-0"	1 3/4"	HM	PT	-	A	HM	6"	PT	D2/AE601	B2 & C2/AE601	B5/AE601	-	-	3	
D104A	104	3A	10'-0"	10'-0"	-	ST	P. FIN.	T	-	ST	-	G & PT	D4/AE601	B1 & C4/AE601	-	-	-	5	SECTIONAL INSULATED DOOR

G = GALVANIZED HM = HOLLOW METAL P. FIN. = PRE-FINISHED T = TEMPERED ST = STEEL PT = PAINTED



## DOOR TYPES

## DOOR FRAME TYPES

CLIENT



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160 EAST HIGHWAY 96  
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DESIGNER

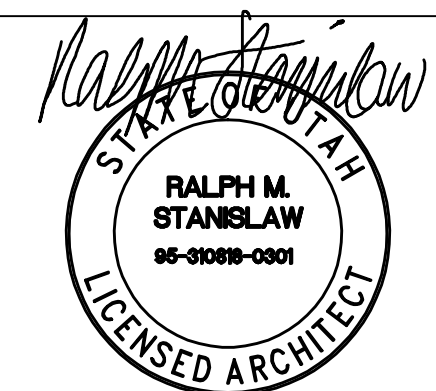


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ISSUE

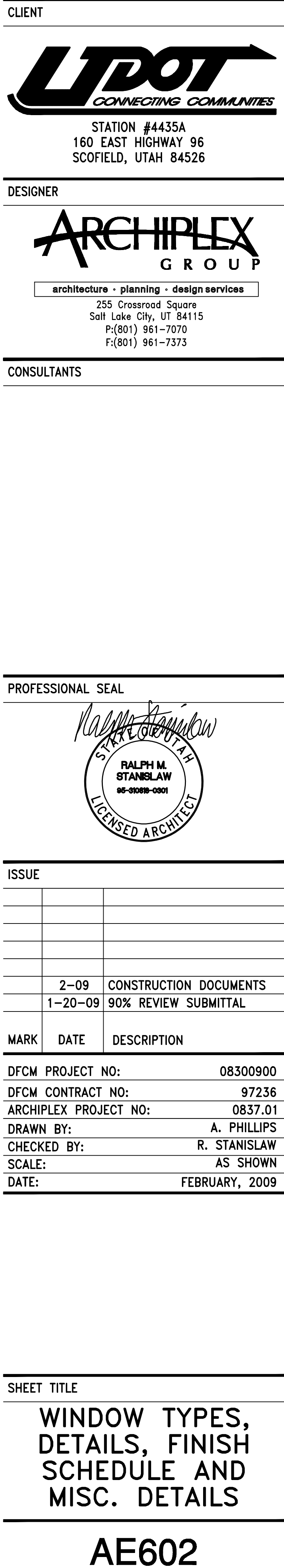
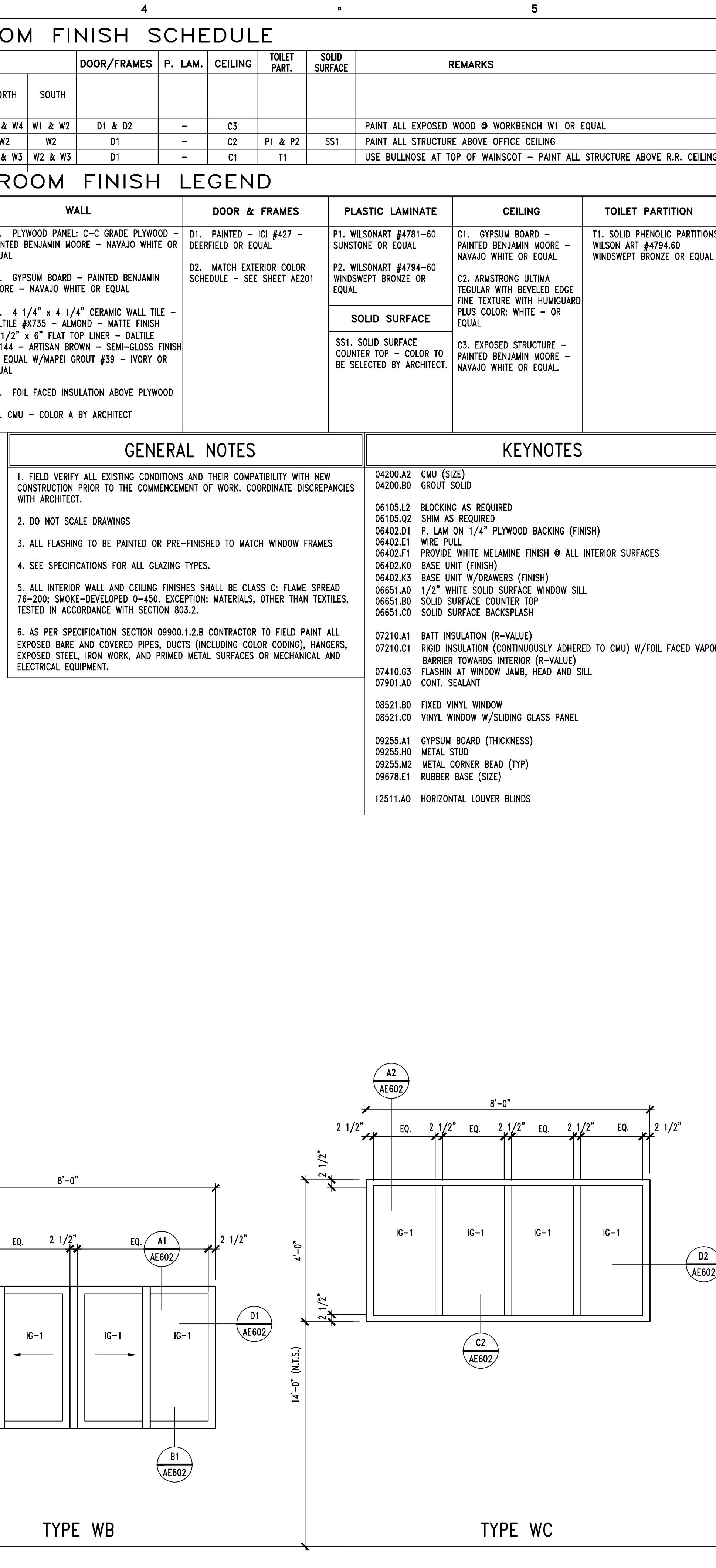
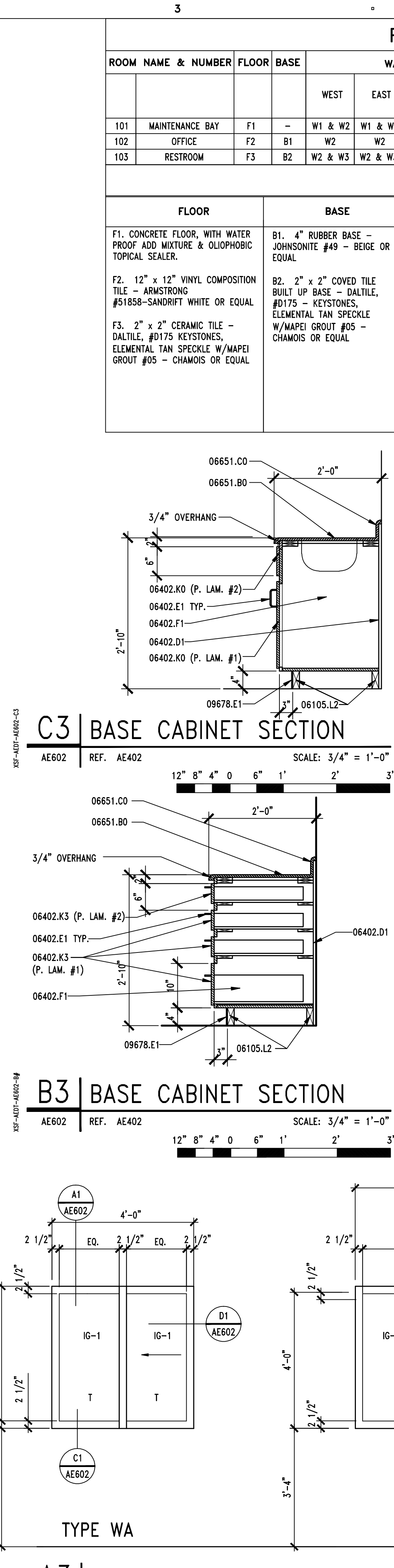
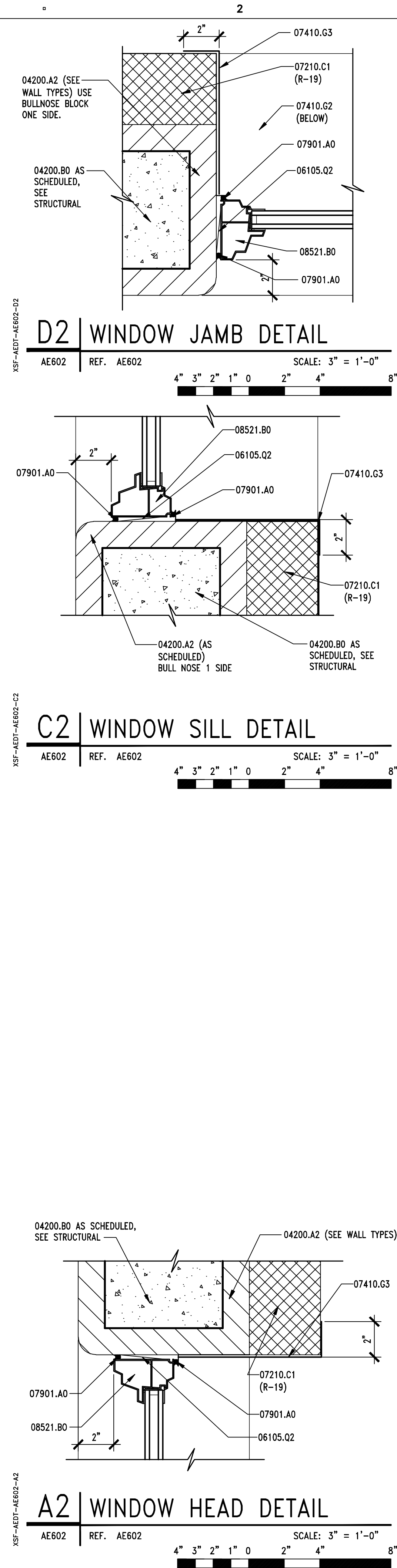
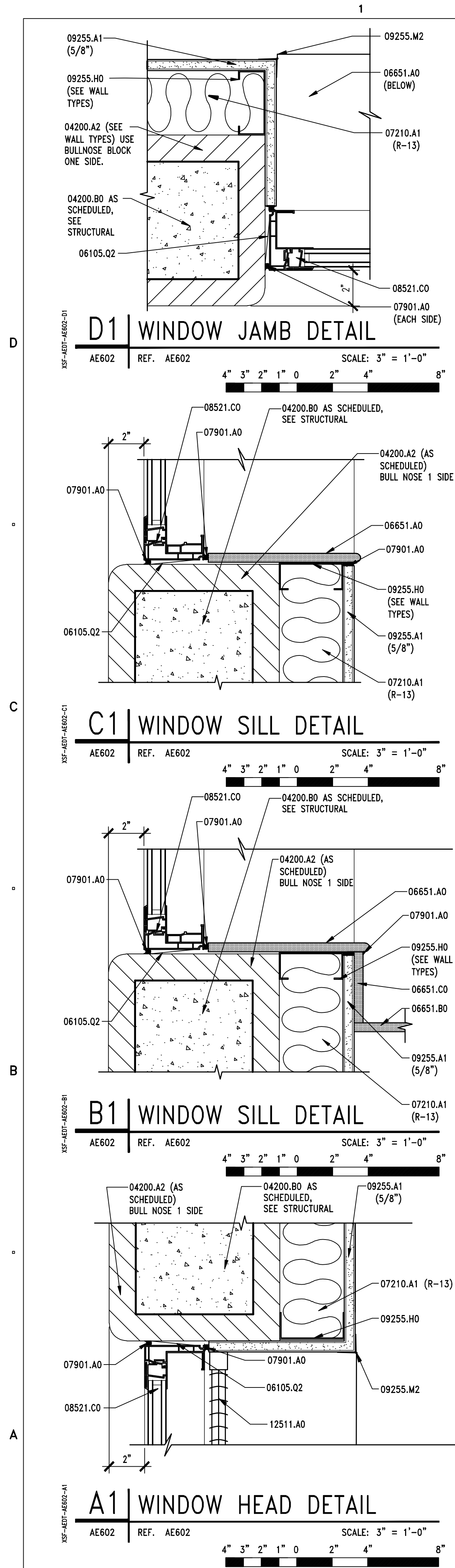
	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08300900
DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
DRAWN BY:		A. PHILLIPS
CHECKED BY:		R. STANISLAW
SCALE:		AS SHOWN
DATE:		FEBRUARY, 2009

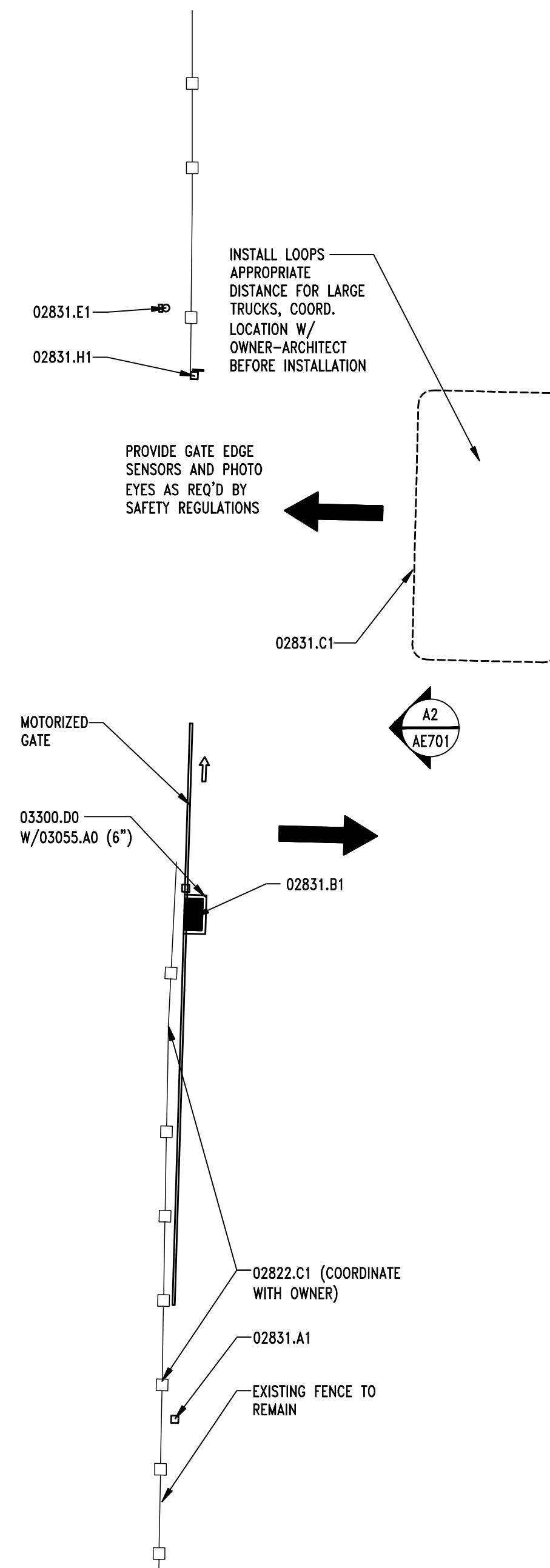
**SHEET TITLE**

## DOOR SCHEDULES AND DETAILS

AE601



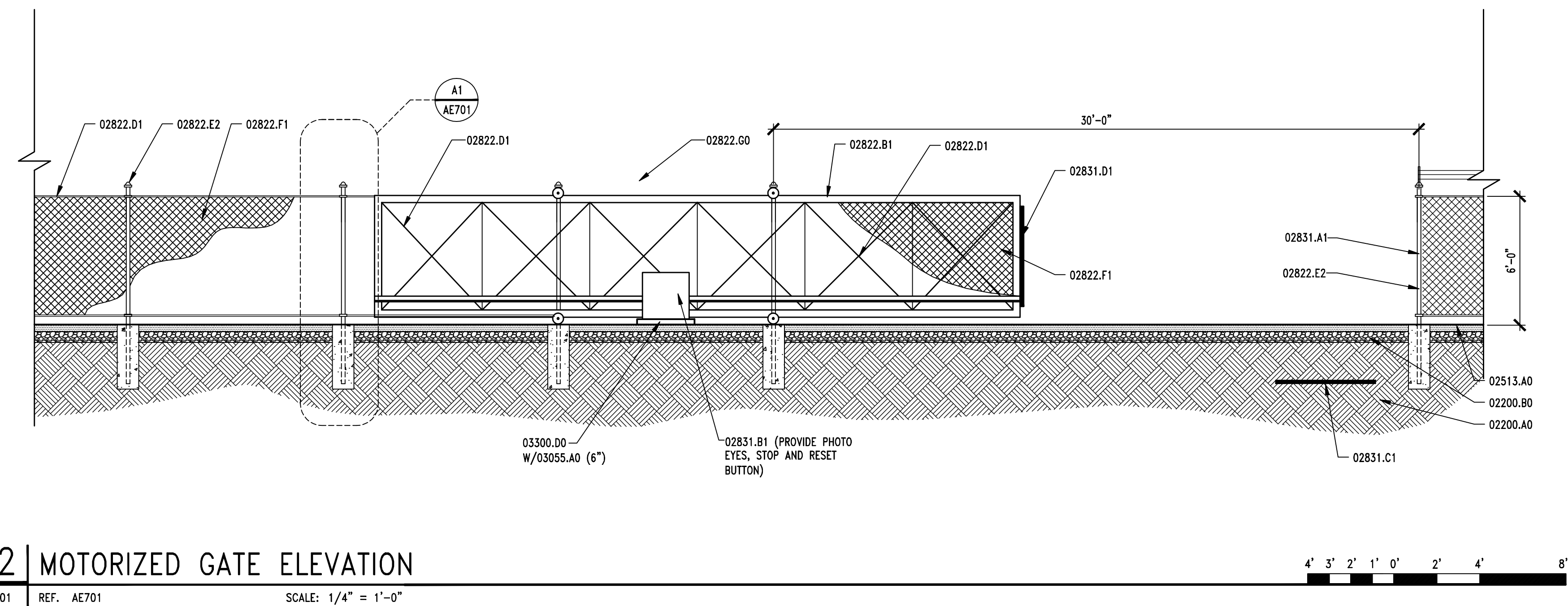
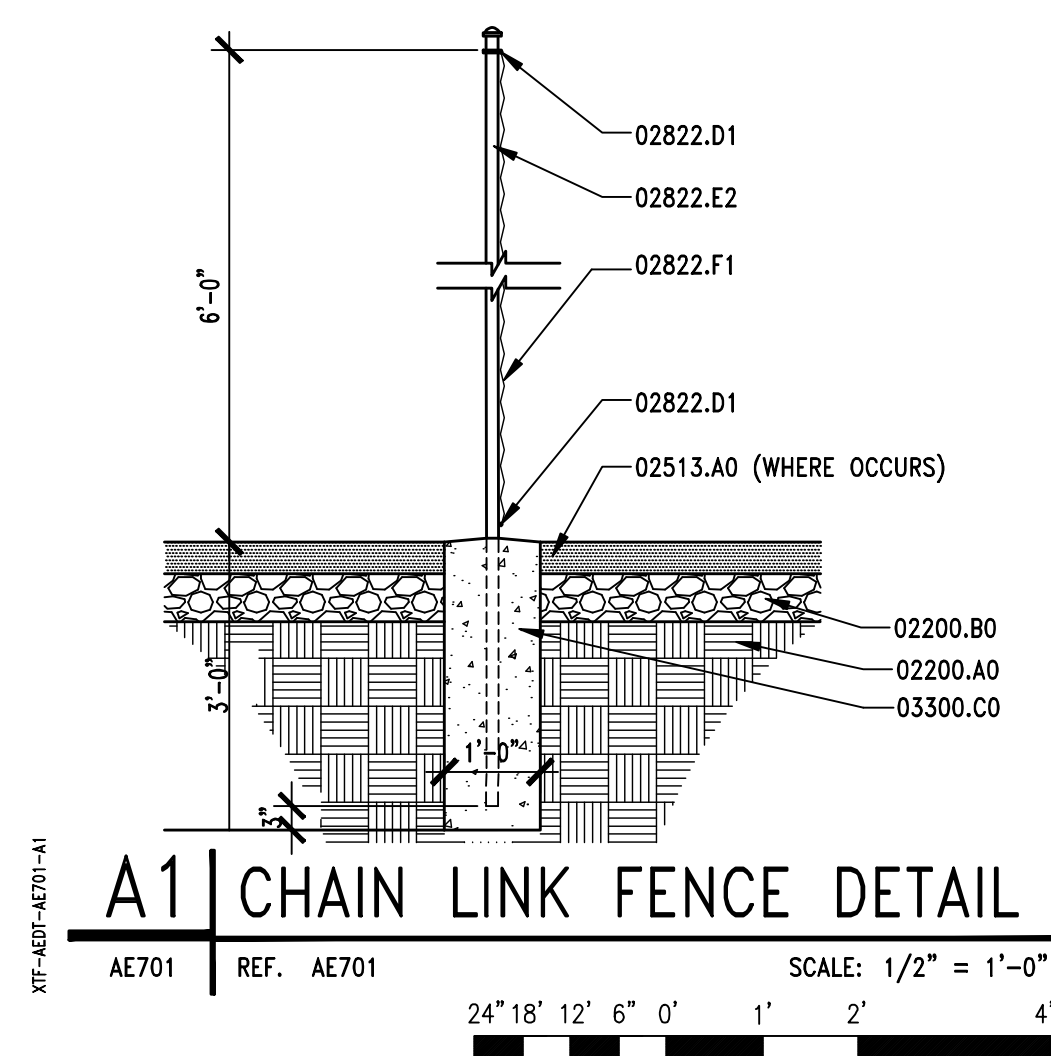




**B1 | GATE PLAN**

AE701 REF. SCALE: 1/8" = 1'-0"

8' 6' 4' 2' 0' 4' 8' 16'



## A2 | MOTORIZED GATE ELEVATION

KEYNOTES
----------

02200.A0	COMPACTED FILL
02200.B0	GRAVEL BASE
02513.A0	ASPHALT CONCRETE PAVING
02822.B1	2" # GATE FRAME
02822.C1	NEW 6" HIGH CHAIN LINK FENCE - SEE CIVIL
02822.D1	TENSION TIE WIRE
02822.E2	LINE POSTS @ 8'-0" O.C.
02822.F1	2" DIAMOND MESH STEEL FABRIC
02200.G0	
02831.A1	PHYSICAL SLIDE STOP
02831.B1	HYDRAULIC SLIDE GATE OPERATOR W/AUDIO ALARM
02831.C1	UNDERGROUND OBSTRUCTION LOOP
02831.D1	PROVIDE GATE SENSORS
02831.E1	KEY PAD ACCESS ON PEDESTAL
02831.H1	GATE RECEIVER POCKET

03055.A0	SALT AND WATER BARRIER
03300.C0	FOOTING
03300.D0	CONCRETE PAD

GENERAL NOTES

1. FIELD VERIFY ALL EXISTING CONDITIONS AND THEIR COMPATIBILITY WITH NEW CONSTRUCTION PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE DISCREPANCIES WITH ARCHITECT.
2. DO NOT SCALE DRAWINGS.
3. SEE ELECTRICAL DRAWINGS FOR ALL POWER & CONTROL INFORMATION.
4. CONTRACTOR TO PROVIDE ALL REQUIRED CODE & SAFETY DEVICES AS REQUIRED BY GATE MANUFACTURER.

CLIENT



STATION #4435A  
160 EAST HIGHWAY 96  
SCOFIELD, UTAH 84526

DESIGNER

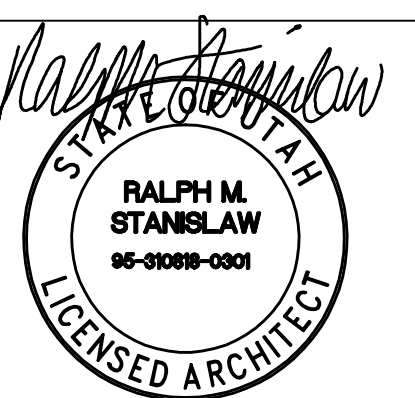


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## CONSULTANTS

PROFESSIONAL SEAL



ISSUE

	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
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DFCM PROJECT NO: 08300900

DFCM CONTRACT NO: 97236

ARCHIPLEX PROJECT NO: 0837.01

DRAWN BY: A. PHILLIPS

CHECKED BY: R. STANISLAW

SCALE:  $1/8"=1'-0"$

DATE: FEBRUARY, 2009

SHEET TITLE

# MOTORIZED GATE PLAN & ELEVATIONS

# AE701

GENERAL STRUCTURAL NOTES

GENERAL

1. The structural notes are intended to complement the project specifications. Specific notes and details in the drawings shall govern over the structural notes and typical details.
2. Typical details and sections shall apply where specific details are not shown.
3. The contractor shall verify all site conditions and dimensions. If actual conditions differ from those shown in the contract drawings, the contractor shall immediately notify the architect/engineer before proceeding with the fabrication or construction of any effected elements.
4. Omissions or conflicts between the contract drawings and/or specifications shall be brought to the attention of the architect/engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the architect/engineer at no additional cost to the owner.
5. The contractor shall submit a written request to the architect/engineer before proceeding with any changes, substitutions or modifications. Any work done by the contractor before receiving written approval will be at the contractor's risk.
6. The contractor shall coordinate with all trades any items that are to be integrated into the structural system such as openings, penetrations, mechanical and electrical equipment, etc. Sizes and locations of mechanical and other equipment that differs from those shown on the contract drawings shall be reported to the architect/engineer.
7. The contractor shall provide adequate shoring and bracing as required for his method of erection. Shoring and bracing shall remain in place until final connections for the permanent members are completed. The building shall not be considered stable until all connections are completed. Walls shall not be considered self-supporting and shall be braced until the roof system is completed.
8. Site observations by BHB Consulting Engineers, P.C.'s field representative shall not be construed as approval of construction procedures nor special inspection.
9. Detailing and shoring production for structural elements will require information (including dimensions) contained in the architectural, structural and/or other consultants' drawings. The structural drawings shall be used in conjunction with the architectural and other consultant's drawings. Some dimensions and elements such as elevations, depressions, slopes, mechanical housekeeping pads, etc. are not shown in the structural drawings. All dimensions shown on structural drawings shall be verified by contractor with architectural, mechanical and electrical drawings.
10. Review of shop drawing submittals by BHB Consulting Engineers, P.C. is for general compliance only and is not intended for approval. The shop drawing review shall not relieve the contractor from the responsibility of completing the project according to the contract documents.
11. Shop drawings made from reproductions of the contract drawings will be rejected unless the contractor signs a release agreement prior to the shop drawings being reviewed.
12. Only an authorized representative of BHB Consulting Engineers, P.C. may make changes to these contract drawings. BHB Consulting Engineers, P.C. shall not be held responsible or liable for any claims arising directly or indirectly from changes made without written authorization by an authorized representative of BHB Consulting Engineers, P.C.

BASIS OF DESIGN

1. Governing Building Code International Building Code 2006
2. Roof Snow Load
- a. Ground Snow Load  $P_g = 164$  psf
- b. Snow Importance Factor  $I_s = 1.0$
- c. Snow Exposure Coefficient  $C_e = 1.0$
- d. Thermal Exposure Coefficient  $C_t = 1.0$
- e. Roof Snow Load  $P_f = 0.7^* C_e^* C_s^* I_s^* P_g = 115$  psf plus Snow Drift
3. Seismic Loads
- a. Short Period Mapped Spectral Acceleration  $S_s = 0.651$
- b. Soil Site Class  $F_a = 1.279$
- c. Short Period Site Coefficient  $S_{s1} = 2/3^* F_a^* S_s = 0.555$
- d. 5% Damped Design Spectral Response Acceleration  $I_s = 1.00$
- e. Seismic Importance Factor  $R = 5.0$
- f. Response Modification Coefficient
- g. Basic Seismic-Force-Resisting System Masonry shear walls
- h. Seismic Response Coefficient  $C_s = S_{DS}^* I_s / R$
- i. W Seismic Dead Loads of Structure  $D$
- j. Building Seismic Design Category 2
- k. System Overstrength Factor 2.5
- l. Deflection Amplification Factor 0.5
- m. Base Shear  $V = C_s^* W = 0.11^* W$  (Strength Design)

5. Wind Loads
- a. Wind Velocity (3 Second Gust) 90 mph
- b. Exposure Type C
- c. Wind Importance Factor 1.00

FOUNDATION

1. Soils Report by PEPG Engineering, L.L.C., dated December 22, 2008.
2. Soil Bearing Pressure: 1,950 psf, on Imported Compacted Structural Fill.
3. Frost Protection: 36 inches minimum.
4. Lateral Soil Pressure Fluid Equivalent Density.
- a. Active ..... 35 pcf (retaining walls)
- b. At Rest ..... 55 pcf (rigid foundation walls)
- c. Passive ..... 300 pcf
5. Coefficient of Friction ..... 0.4

EARTHWORK

1. All footings shall bear on imported compacted structural fill extending down to suitable natural material. See detail A2/SB501.
2. Scarify the exposed natural soil in the bottom of the excavation, moisture condition the native soil and re-compact.
3. Consult the project specifications and soils report for further earthwork requirements.
4. Slab on grade shall bear on 9 inches of structural fill capped with 4 inches of gravel.

CONCRETE

1. Materials, unless noted otherwise:
- a. Normal weight aggregates ASTM C 33
- b. Reinforcing Steel ASTM 615 Grade 60 (Fy = 60 ksi)  
Use Grade 40 (Fy = 40 ksi) for field bent dowels with spacings indicated reduced by 1/3.
- c. Deformed Bar Anchors (DBA) ASTM A496
- d. Headed Stud Anchors (HSA) ASTM A108
- e. Anchor Rods  
Typical, uno ASTM F1554, Grade 36, with ASTM A563 heavy hex nuts and hardened washers Grade A
- Admixtures:
- i. Air-entraining admixtures comply with ASTM C 260 (when used).
- ii. Calcium chloride shall not be added to the concrete mix.
- f. Type III/ cement complying with ASTM C-150 shall be used for all concrete.
- g. The water/cement ratios shall meet the requirements of ACI 318.
- h. Provide air entraining as recommended by ACI 318.
- i. No aluminum conduit or product containing aluminum or any other material injurious to concrete shall be embedded in concrete.
2. Compressive strengths of concrete at 28 days shall be as follows:
- a. Footings ..... 4,500 psi
- b. Interior Slabs on Grade ..... 3,000 psi
- c. Walls ..... 4,500 psi
- d. All Site Concrete ..... 4,500 psi

3. Only one grade or type of concrete shall be poured on the site at any given time.
4. The contractor shall be responsible for the design, detailing, care, placement and removal of all formwork and shores.
- a. Supporting forms and shoring shall not be removed until structural members have acquired sufficient strength to safely support their own weight and any construction load to which they may be subjected. In no case, however, shall forms and shoring be removed in less than 24 hours after concrete placement.
5. Reinforcement shall have the following concrete cover:
- Cast-in-place Concrete: ..... Clear Cover
- a. Cast against and permanently exposed to earth ..... 3"
- b. Formed concrete exposed to earth or weather: ..... 2"
- ..... #6 thru #18 bars
- ..... #5 and smaller bars ..... 1-1/2"
- c. Concrete not exposed to weather or in contact with ground: ..... 3/4"
- Slabs, Walls, Joists, #11 bars and smaller
- Beams, Columns, Primary Reinf. Ties, Stirrups, Spirals ..... 1-1/2"
6. Construction Joints and Control Joints:
- a. Provide a formed and beveled 2 x 4 x continuous keyway in all horizontal and vertical construction joints including between top of footing and foundation walls, unless noted otherwise. In addition, all joints shall be intentionally roughened to a full amplitude of approximately 1/4 inch.
- b. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1:25:1. Control joints shall be completed within 12 hours of concrete placement. Control joints may be installed by:
- i. Saw cut a depth of 1/4 the thickness of the slab
- ii. Tooled joints a depth of 1/4 the thickness of the slab
- c. Install construction or control joints in slabs on grade at a spacing not to exceed 30 times the slab thickness in any direction, unless noted otherwise. Construction joints shall not exceed a distance of 125'-0" o.c. in any direction.
8. Construction
- a. Use chairs or other support devices recommended by the CRSI to support and tie reinforcement bars prior to placing concrete. Reinforcing steel for slabs on grade shall be adequately supported on precast concrete units. Lifting the reinforcing off the grade during placement of concrete is not permitted.
- b. Concrete to be mechanically consolidated during placement per ACI standards.
- c. Contractor shall coordinate placement of all openings, curbs, dowels, sleeves, conduits, bolts, inserts and other embedded items prior to concrete placement.
- d. All embeds and dowels shall be securely tied to formwork or to adjacent reinforcing prior to the placement of concrete.
- e. No pipes, ducts, sleeves, etc shall be placed in structural concrete unless specifically detailed or approved by the structural engineer. Penetrations through walls when approved shall be built into the wall prior to concrete placement. Penetrations will not be allowed in footings or grade beams unless detailed. Piping shall be routed around these elements and footings stepped to avoid piping.
- f. Reinforcing Bars shall not be welded. Do not substitute reinforcing bars for DBAs or HSAs.

9. Detailing:
- a. Lap splice lengths shall be detailed to comply with the "Concrete Reinforcing Bar Lap Splice Schedule" on sheet SB601. Splices may be made with mechanical splices capable of 125% tension capacity of the bar being spliced. Mechanical splices shall be the positive connecting type coupler and shall meet all International Building Code requirements. Use "CadeWeld", "Lenton" Standard Couplers, "Bar-Lock" or equal with internal protector. If mechanical splices are used, splices or couplers on adjacent bars shall be staggered a minimum of 24" apart along the longitudinal axis of the reinforcing bars.
- b. At joints provide reinforcing dowels to match the member reinforcing, unless noted otherwise.
- c. At all discontinuous control or construction slab on grade joints, provide 2 - #4 x 48 inches.
- d. Provide corner bars at intersecting wall corners using the same bar size and spacing as the horizontal wall reinforcing.
- e. All vertical reinforcing shall be dowelled to footings, or to the structure below with the same size and spacing as the vertical reinforcing for the element above. Dowels extending into footings shall terminate with a 90 degree standard hook and shall extend to within 4" of the bottom of the footing. Footing dowels (#8 bars and smaller) with hooks need not extend more than 20" into footings.
- f. Horizontal wall reinforcing shall terminate at ends of walls and openings into the far end of the jamb column with a 90-degree standard hook plus a 6 bar diameter extension. Horizontal wall reinforcing shall be continuous through construction and control joints.

EPOXY

1. Epoxy shall be "HIT RE 500-SD" by Hilti Corporation, ITW Redhead Epon GS or SET-XP by Simpson Strong Tie for concrete.
2. Epoxy shall be "HIT HY 150 MAX" by Hilti Corporation or "SET" by Simpson Strong Tie for Masonry.
3. All drilled holes for bars or anchors rods 1" in diameter and smaller shall be 1/8 inch larger in diameter than the bar size rod being installed. All drilled holes for bars or anchor rods greater than 1" in diameter shall be 1/4 inch larger in diameter than the bar or anchor rod being installed.
4. After drilling the proper size hole, clean the walls and bottom of the drilled hole of all dust and debris using a nylon brush in conjunction with oil free compressed air. The hole shall be free of dust, debris and standing water.
5. Follow all of the manufacturer's recommendations for epoxy installation.

MASONRY

1. Materials, unless noted otherwise:
- a. Concrete Masonry Units (CMU): Lightweight Grade N, Type 1 (minimum unit strength of 2800 psi),  $f_m = 2000$  psi
- b. Mortar: Use Type "S" 1800 psi minimum compressive
- c. Grout shall attain a minimum compressive strength of 2800 psi at 28 days.
- d. Reinforcing Steel ASTM 615 Grade 60 (Fy = 60 ksi)
- e. Deformed Bar Anchors (DBA) ASTM A496
- f. Headed Stud Anchors (HSA) ASTM A108
- g. Anchor Rods ASTM F1554, Grade 36, with ASTM A563 heavy hex nuts and hardened washers

2. Reinforcement shall have the following cover:
- a. reinforcement shall have a minimum coverage of one bar diameter over all the bars, but not less than 3/4". When masonry is exposed to soil, minimum coverage shall be 1.5".
3. Construction Requirements:
- a. All units shall be laid with full mortar beds on the face shells. All head joints shall be filled solidly with mortar for a distance in from the face of the units not less than the thickness of the longitudinal face shells. Cells which are to be grouted shall have full head joints.
- b. Masonry walls, beams and columns shall be constructed with running bond, unless noted otherwise.
- c. All cells containing reinforcement, embeds, anchor bolts, etc. shall be filled solid with grout. Grout shall be placed by mechanical vibration during placing and re-vibrated after excess moisture has been absorbed but before workability is lost. Rodding of grout is not allowed.
- d. Where walls are not grouted solid, each grout pour shall terminate flush with the top of the uppermost unit except at cells with vertical reinforcing where the grout shall be 1-1/2 inches below top of unit to provide construction key.
- e. Grout pours shall be limited to 4'-0" unless written approval is obtained from the engineer of record.
- f. All walls below grade shall be grouted solid.
- g. Vertical cells to be filled with grout shall have vertical alignment sufficient to maintain a clear, unobstructed vertical cell measuring not less than 2 inches by 3 inches. All steel reinforcement shall be secured against displacement prior to grouting by wire positioners or other suitable devices at intervals not exceeding 200 bar diameters or 10 feet maximum, or at bar splice locations. Vertical reinforcing shall be located at the center of the wall unless noted otherwise.
- h. Reinforcing Bars shall not be welded. Do not substitute reinforcing bars for DBAs or HSAs.
- i. Control Joints: Spacing shall not exceed 40'-0". See architectural drawings for locations.
- j. Grout all beam and joint pockets solid after installation of beams and joists.
- k. Embed channels and plates shall be placed so as to create a flush surface with the face of the wall.
- l. Anchor bolts and headed stud anchors shall be set in a grouted cell. Anchor bolts and headed stud anchors shall have 1" grout surrounding the shank at its penetration. Grout shall be flush with the face or top of the masonry.

4. Detailing Requirement
- a. Lap all masonry reinforcing per "Masonry Reinforcing Lap Schedule" on sheet SB601. All vertical reinforcing shall be dowelled to the foundation wall, footing (structure below) and to the structure below with the same size dowel, spacing (and in the same core) as the vertical wall reinforcing above.
- b. Corner Bars: Horizontal reinforcement shall be continuous at all corners and at intersecting walls. Provide corner bars with the required lap splice length.
- c. Wall Openings: For unscheduled openings wider than 24 inches, provide reinforcing on all sides per detail C2/SB501. Also, for all scheduled openings, provide horizontal bar at bottom of opening per detail C2/SB501. Vertical bars shall extend from roof level below to the floor, or roof level above. Horizontal bars for all openings shall extend a minimum of 48 bar diameters beyond the corners of the opening. Where a 48 bar diameter extension is not possible, extend bars as far beyond the opening as possible and terminate the bar(s) with a 90 degree standard ACI hook.
- d. Horizontal wall reinforcing shall be continuous through joining concrete walls, masonry walls, columns, and pilasters. Provide a key between the wall and the column or pilaster. Horizontal wall reinforcing shall be placed inside the column vertical reinforcing.
- e. Horizontal wall reinforcing shall terminate with a hook at edge of openings and at each side of control joints except at floor and roof levels, lintels, beams and at top of parapets. See details B1 & C2/SB502.
- f. All masonry column ties shall terminate with 135 degree hooks plus a 6 bar diameter extension (4" minimum)

STRUCTURAL STEEL

1. Material:
- a. Wide Flanges Section ASTM A992 (50 ksi)
- b. Other shapes & Plates ASTM A36 (36 ksi)
- c. Square or Rectangular HSS ASTM A500 (46 ksi) Grade B
- d. Deformed Bar Anchors (DBA) ASTM A496
- e. Headed Stud Anchors (HSA) ASTM A108
- f. Anchor Rods  
Gravity Columns ASTM F1554, Grade 36, with ASTM A563 heavy hex nuts and hardened washers Grade A
- ASTM A325
- g. Bolted Connections: ASTM A325
2. Fabrication and construction shall comply with the latest edition of the following Codes and Standards:
- a. American Institute of Steel Construction (AISC), "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings," with "Commentary".
- b. AISC "Code of Standard Practice" excluding the following: Section 3.4, Section 4.4, Section 4.4.1.
- c. AISC "Specification for Structural Joints Using ASTM A325 or A490 Bolts"
- d. American Welding Society (AWS), Structural Welding Code (specific items do not apply when they conflict with the AISC requirements).
- e. AISC "Seismic Provision for Structural Steel Buildings"
3. Welding:
- a. All welding and cutting shall be performed by AWS certified welders.
- b. Use E-70 XX or as noted otherwise. E60 XX may be used for welding steel roof decks.
- c. All intersecting steel shapes which are not bolted shall be connected by a fillet weld all around, unless noted otherwise. Where fillet weld sizes are not shown they shall be 1/8" less than the thinnest of the connected parts for thicknesses 1/4" and larger. Fillet welds on plates less than 1/4" shall be of the same size as the thinnest of the connected part.
- d. Reinforcing Bars: Do not weld rebar. Do not substitute reinforcing bars for deformed bar anchors (DBAs), machine bolts, or headed stud anchors (HSAs).
- e. Do not weld anchor bolts, including "back" welds.
- f. Headed Stud Anchors (HSAs) welding and deformed bar anchor welding shall conform to the manufacturer's specifications.

4. Bolted Connections:
- a. Use ASTM A325N bolts for steel to steel connections, as noted herein or as noted on the drawings. A325N bolts shall be used in connections for simple span framing and beam (or girder) to bearing plate connections. Tighten bolts to a snug tight condition. See sheet F601.
- b. Use hardened washers beneath the turned element of all bolts or nuts. Use hardened beveled washers, to compensate for the lack of parallelism, where the outer face of the bolted parts has a slope greater than one in twenty with respect to the plane normal to the bolt axis. At oversized holes hardened washers or plates shall conform with ASTM F-436 and shall completely cover the slot after installation.
- c. Where a steel to steel beam connection is not shown, provide a standard AISC framed connection for one half the total uniform load capacity of the beam for the span and steel specified.
- d. Bolts, nuts and washers shall not be reused.
5. Provide full-depth web stiffener plates at each side of all beams at all bearing points. Stiffener plates shall be the thickness called out below unless otherwise noted and shall be welded both sides with fillet welds all around:

FLANGE WIDTH	STIFFENER THICKNESS	WELD SIZE
Less than 8 1/4"	1/4"	3/16"
8 1/4" to 12 1/4"	3/8"	1/4"
12 1/4" to 16 1/2"	1/2"	5/16"
16 1/2" to 20 3/4"	5/8"	3/8"

OPEN WEB STEEL JOISTS

1. All open web steel joist shall be fabricated and erected in accordance with the latest edition of Steel Joist Institute (SJI), "Standard Specifications and Code of Standard Practice".
2. At the completion of fabrication, the steel joist manufacturer shall submit to the building official a certificate of compliance in accordance with IBC, Section 1704.2.2 stating if the work was performed in accordance with approved construction documents and with SJI standard specifications.
3. Joists with slopes greater than 1/2 inch per foot shall be designed to meet or exceed the load capacities, listed in the SJI load tables, of the joist sizes indicated on the framing plan, as if the joists or girders were installed level.
4. Provide special bearing ends to accommodate slopes from sloped joists or sloped bearing conditions.
5. Modifications to any joist, including holes through the top and bottom chords, without the written consent and direction from the manufacturer is not allowed.
6. Open web joist deflection shall be limited to L/240 for total loads and L/360 for live load, unless noted otherwise.
7. Joist bridging shown on plans is for schematic purposes only; actual size, quantity and location of bridging shall be determined by the joist supplier per SJI. Coordinate bridging locations to avoid interference with mechanical, electrical and fire protection equipment and skylights.

METAL DECKING

1. Steel deck shall comply with the latest requirements of the Steel Deck Institute.
2. All deck shall be 3-span continuous minimum. In areas where 3-span conditions are not possible, the contractor shall provide heavier gage deck as required to provide the equivalent loading of the deck under a three span condition.
3. Steel roof deck shall not be used to support loads from plumbing, HVAC ducts, light fixtures, architectural elements or equipment of any kind, unless specifically noted. Light weight suspended acoustical ceilings with a total weight of 50 lbs per attachment may be hung from roof deck. The hangers shall be staggered to distribute the loads over multiple deck flutes.
4. All deck supporting members shall be dry before welding.
5. Clinch seams before welding interfering seams.

Steel Roof Deck

- a. Steel roof deck shall be 3" deep X 20 gage minimum painted, type "N" wide rib deck with interlocking side seams with the following properties:
- |                               |         |
|-------------------------------|---------|
| 20 Gage                       | 18 Gage |
| Minimum S ( $m^2/n$ ) = 0.508 | 0.731   |
| Minimum I ( $m^4/n$ ) = 0.837 | 1.223   |
- b. Minimum allowable deck diaphragm shear values shall be 450 lb/ft. for a 8'-6" deck span.
- c. Weld steel roof deck to supporting framing members with 3/4" diameter puddle welds at the following spacings (Closer spacing may be used to develop minimum shear requirements.):
- i. 6" o.c. to all supports perpendicular to deck corrugations (4 welds per 24" sheet).
- ii. 6" o.c. to all supports parallel to deck corrugations.
- d. Hilti power driven fasteners are acceptable as an alternative to welds provided the connection meets the diaphragm shear capacity given above. Call Hilti at 800-879-8000 extension 6337 for connection information comparison. If Hilti power driven fasteners are used, the contractor shall submit Hilti's calculations to the Architect/Engineer for review. Also if Hilti power driven fasteners are used, a Hilti representative shall be present before the decking is installed to make sure the installer is properly trained in using the equipment. The Hilti representative shall also make a site visit the day after deck has been started to be installed to verify the power driven fasteners are being installed correctly.
- e. Attach interlocking seams with 1 1/2" long top seam welds at 12" o.c. maximum or with Vercor PunchLok System at 18" o.c. maximum, with ASC Delta Grip System at 18" o.c. maximum. Closer spacing may be used to develop minimum shear requirements. A standard button punch can not be used in place of Vercor PunchLok, DeltaGrip or Gator-Seismic Sheatloc.
- f. Provide a 2-inch minimum bearing and a 4-inch lap at the splice points.

SPECIAL INSPECTION AND QUALITY ASSURANCE

- Special inspection and quality assurance, as required by section 1704 thru 1709 of the IBC, shall be provided by an independent agency employed by the owner unless waived by the building official. The contractor shall coordinate and cooperate with the required inspections. All testing and inspection reports shall be sent within 24 hours of the test to the architect, engineer, building official and contractor for review. Special inspection during fabrication is not required if the fabricator is registered and approved to perform such work with out special inspection. Items requiring special inspection and quality assurance are:
1. Soils (IBC 1704.7)
- a. Prior to placement of the prepared fill, the special inspector shall determine that the site has been prepared in accordance with the soils report.
- b. During placement and compaction of the fill material, the special inspector shall determine that the material being used and the maximum lift thickness comply with the soils report.
- c. The special inspector shall determine that the in-place dry density of the compacted fill material complies with the soils report.
- i. Continuous Footing Backfill: At each compacted backfill layer, at least one test for each 40 linear feet or less of wall length, but no fewer than 2 tests.
- ii. Spot Footing Backfill: Minimum of one compaction test for each lift for each spot footing.
- d. See specifications for further requirements.
2. Concrete placement (IBC Section 1704.4)
- a. Periodic special inspection shall be provided
- b. Cylinders, slump, temperature and air-entrainment shall be done for every 50 cubic yards or each day's production if the day's production is less than 50 cubic yards.
- c. Protection of concrete during cold and hot weather
- d. See specifications for further concrete testing requirements.
3. Bolts installed in concrete (IBC Section 1704.4)
- a. All bolts shall be special inspected prior to and during concrete placement.
4. Embeds and Inserts installed in concrete (IBC Section 1704.4)
- a. All embeds and inserts shall be special inspected prior to and during concrete placement.
5. Concrete reinforcing steel placement (IBC Section 1704.4)
- a. All Reinforcing shall be special inspected prior to concrete placement.
6. Structural welding, including steel deck (IBC 1707.2 and 1704.3)
- a. Periodic special inspection of roof decks.
- b. Periodic special inspection of single pass fillet welds less than or equal to 5/16"
- c. Continuous special inspection of single pass fillet welds greater than 5/16" and multi-pass fillet welds.
- d. Continuous special inspection of complete and partial penetration welds.
7. Metal deck using mechanical attachments (IBC 1704.13)
- a. Periodic special inspection of roof decks. Special inspection shall be done to verify size and spacing of shot pins / screws for deck attachment to the supporting structural. Also special inspection shall be done to verify spacing and size of seam attachments.
8. Structural masonry shall have Level 1 (Non-Essential Facilities) special inspection per IBC section 1704.5.2

- a. Periodic special inspection shall be performed for
- i. Proportions of site-prepared mortar, construction of mortar joints,
- ii. Location of reinforcement and connectors,
- iii. Size and location of structural elements
- iv. Type, size and location and placement of anchors
- v. Size, grade and type and placement of reinforcement
- vi. Verify grout space is clean prior to grouting
- vii. Protection of masonry during cold and hot weather
- b. Continuous special inspection shall be provided for grout placement and preparation of any required grout specimens, mortar specimens and prisms.
- c. Quality Assurance shall be according to Level 2 quality assurance (Table 1.14.1.2 of ACI 530/ASCE 5/TMS 402).
- i. Prior to construction, a letter of strength certification from the suppliers of the masonry units and grout shall be submitted.
- ii. During construction, the grout and mortar shall be tested for every 5,000 square feet of masonry constructed.
- iii. The contractor has the option of using the "Masonry Prism Test Method" per IBC Section 2105.2.2.2 in lieu of the "Unit Strength Method."

9. Epoxy Anchors (IBC Section 1704.13)
- a. Special inspection shall verify all drilled holes' size and depth prior to installation of epoxy and anchor rod.

SITE OBSERVATIONS BY STRUCTURAL ENGINEER

Site observations, as required by IBC section 1709, shall be done by the Engineer of Record or an approved subordinate at the stages of construction listed below. The contractor shall notify the engineer when he has reached the construction stage listed below and before the work to be observed is covered up, walled in or becomes otherwise hidden from view or in-accessible to any necessary corrections. At the conclusion of the project, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies that to the best of the structural observer's knowledge have not been resolved (See 1709.1).

1. No structural observations are required by code.

DEFERRED SUBMITTALS

For the purpose of this section, deferred submittals are defined as per section 106.3.4.2 of the IBC. Submittal documents for deferred submittal items shall be submitted to the engineer, architect and building official for their review for general conformance with the design of the building. Deferred structural submittals for this project are:

1. Open Web Steel Joists.

LEGEND OF MARKS AND ABBREVIATIONS

AB	ANCHOR BOLT(S)	k	KIP(S) = 1000 POUNDS
ABV	ABOVE	KLF	KIPS PER LINEAL FOOT
ALT	ALTERNATE	KSF	KIPS PER SQUARE FOOT
APPROX	APPROXIMATE	LBS	POUNDS
ARCH	ARCHITECTURAL	LF	LINEAL FOOT
BLDG	BUILDING	LLH	LONG LEG HORIZONTAL
BLW	BELOW	LLV	LONG LEG VERTICAL
BM	BEARING	LSV	LONG SIDE VERTICAL
BOT	BOTTOM	MAS	MASONRY
BTWN	BETWEEN	MAX	MAXIMUM
CJ	CENTER-TO-CENTER	MCJ	MASONRY CONTROL JOINT
C.C.	CONST/CONTROL JOINT	MFR	MASONRY COLUMN MARK
CMU	CONCRETE MASONRY UNIT	MIN	MINIMUM
COL	COLUMN	MECH	MECHANICAL
CONC	CONCRETE	MANUFACTURER	MANUFACTURER
CONST	CONSTRUCTION	MISC	MISCELLANEOUS
CP-X	CONCRETE PIER	ML-X	MASONRY LINTEL
CTR	CENTER	MM-X	MASONRY WALL
CW-X	CONCRETE WALL	NIC	NOT IN CONTRACT
DBA	DECK BEARING	NTS	NOT TO SCALE
DBE	DECK BEARING ELEVATION	O.C.	ON CENTER
DN	DOWN	O.F.	OUTSIDE FACE
DWG	DRAWING	OPNG	OPENING
DWL	DOWEL	OPP	OPPOSITE
EA	EACH	PCF	POUNDS PER CUBIC FOOT
EAF	EACH FACE	PL	PLATE
E.J.	EXPANSION JOINT	PLF	POUNDS PER LINEAL FOOT
ELEC	ELECTRICAL	PSF	POUNDS PER SQUARE FOOT
ELEV	ELEVATION	PT	POINT
EQUIP	EQUIPMENT	RFN	REINFORCING
EQ	EQUAL	REDD	REQUIRED
EW	EACH WAY	R.D.	ROOF DRAIN
EXT	EXISTING	RTU	ROOF TOP UNITS
EXP	EXPANSION	SBP-X	STEEL BASE PLATE MARK
EXT	EXTERIOR	SC-X	STEEL COLUMN MARK
FDN	FOUNDATION	SHT	SHEET
F.D.	FLOOR DRAIN	SHT	SPECIAL INSPECTION
FIN	FINISHED FLOOR	SIM	SIMILAR
FS-X	RECTANGULAR FOOTING MARK	SUSP	SUSPENDED MECHANICAL UNITS
FT	FOOT	SOG	SLAB-ON-GRADE
FTG	FOOTING	SG	SQUARE
FTS-X	THICKEN SLAB MARK	STD	STANDARD
GA	GAUGE	STL	STEEL
GALV	GALVANIZED	STR	STRUCTURAL
GEN	GENERAL STRUCTURAL NOTES	STS	SELF TAPPING SCREWS
HB	HORIZONTAL BRIDGING	T&B	TOP AND BOTTOM
HORIZ	HORIZONTAL	TEMP	TEMPERATURE
HSA	HEADED STUD ANCHOR	THDS	THREADS
HT	HEIGHT	T.O.	TOP OF
ICBO	INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS	TOD	TOP OF CONCRETE
IBC	INTERNATIONAL BUILDING CODE	TOC	TOP OF DECK
IN	INSIDE FACE	TOW	TOP OF FOOTING
INT	INTERIOR	TOS	TOP OF STEEL
INCH	VERTICAL	TOW	TOP OF WALL
INT	INTERIOR	TYP	TYPICAL
JT	JOINT	UNO	UNLESS NOTED OTHERWISE
JOIST	JOIST	VERT	VERTICAL
		WI	WITH
		WWF	WELDED WIRE FABRIC
		WWM	WELDED WIRE MESH

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ISSUE

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	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

DFCM PROJECT NO: 08085

DFCM CONTRACT NO:

ARCHIPLEX PROJECT NO:

DRAWN BY:

CHECKED BY:

SCALE:

DATE: FEBRUARY, 2009

SHEET TITLE

GENERAL  
STRUCTURAL NOTES

SJ001

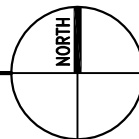




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## ROOF FRAMING PLAN

SCALE: 1/4"=1'-0"



### ROOF FRAMING PLAN NOTES

- VERIFY ALL ROOF OPENINGS FOR MECHANICAL SHAFTS, DRAINS, ETC. WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- JOIST SUPPLIER SHALL DESIGN ALL ROOF JOIST BEARING ENDS AT MASONRY WALLS TO TRANSFER 1500# (ALLOWABLE) AXIAL LOAD THROUGH JOIST BEARING SHOE.
- ALL JOISTS SHALL HAVE 5" DEEP BEARING ENDS (LND).
- ALL ROOF OPENINGS GREATER THAN, OR EQUAL TO, 12" x 12" SHALL BE FRAMED AS INDICATED IN DETAILS A1/SF511. FOR OPENINGS WHICH CUT LESS THAN TWO DECK FLUTES, SEE DETAIL A3/SF511.
- SEE DETAIL A4/SF511 WHEN CONCENTRATED LOADS ARE LOCATED MORE THAN 6" FROM JOIST OR JOIST ORDER PANEL POINT.
- SEE DETAIL B1/SF511 WHEN MECHANICAL UNITS ARE HUNG BELOW JOISTS.
- VERIFY SIZE, WEIGHT, AND LOCATION OF ALL ROOF TOP MECHANICAL UNITS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. SEE DETAIL A2/SF511 FOR STEEL FRAMES AT ALL ROOF TOP EQUIPMENT. COORDINATE OPENINGS WITH MECHANICAL, ELECTRICAL, AND GENERAL CONTRACTORS.
- LOCATE MISCELLANEOUS MECHANICAL OPENINGS BETWEEN JOISTS, NOT UNDERNEATH THEM.
- OPEN WEB STEEL JOISTS AND JOIST GRIDDERS SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT THE MECHANICAL AND LATERAL LOADS SHOWN ON THE ROOF FRAMING PLANS IN ADDITION TO THE UNIFORM AND POINT LOADS SHOWN.
- JOIST BRIDGING SHOWN ON PLANS IS FOR REPRESENTATION ONLY; ACTUAL SIZE, QUANTITY, AND LOCATION WILL BE DETERMINED BY THE JOIST SUPPLIER PER "SJI" REQUIREMENTS. ALL BRIDGING AND BRIDGING ANCHORS NEED TO BE IN PLACE BEFORE APPLYING ANY LOADS. WHERE SKYLIGHT OR MECHANICAL UNITS/DUCTS INTERRUPT HORIZONTAL BRIDGING, PROVIDE CROSS BRIDGING AT JOIST SPACES ON EACH SIDE OF THE OPENING. WHERE DIAGONAL BRIDGING CONFLICTS WITH MECHANICAL DUCTS, REMOVE DIAGONAL BRIDGING AND REPLACE WITH HORIZONTAL BRIDGING AFTER ROOF DECK IS IN PLACE.
- JOIST DESIGNER SHALL DESIGN JOISTS AND SUPPLY ADDITIONAL BRIDGING AS REQUIRED FOR UPLIFT DUE TO WIND. ASSUME:  
DEAD LOAD = 12psf WIND UPLIFT = 20psf (GROSS)  
NO 1/3 STRESS INCREASE ALLOWED.
- SEE DETAIL C2/SB501 FOR ADDITIONAL REINFORCING AT MISCELLANEOUS OPENINGS IN MASONRY WALLS.
- SEE DETAIL B2/SB502 FOR CONDITION AT RECESSES IN MASONRY WALLS.
- SEE DETAIL B2/SB502 FOR TYPICAL CONTROL JOINTS IN MASONRY WALLS.
- SEE DETAIL B1/SB502 FOR TERMINATION OF HORIZONTAL REINFORCING IN MASONRY WALLS.
- SEE ARCHITECTURAL PLANS FOR DIMENSIONS TO ALL STEEL COLUMNS.

### MARKS AND SYMBOLS LEGEND

	SECTION MARK SHEET NUMBER	*	INDICATES THAT THESE JOISTS SHALL BE DESIGNED FOR AN ADLOAD OF 1000# AT ANY POINT.
	INDICATES MASONRY WALL WHICH EXTENDS ABOVE ROOF DECK.	LH (**/**)	INDICATES LH-SERIES JOIST WITH ALLOWABLE TOTAL LOAD / ALLOWABLE LIVE (SNOW) LOAD.
	INDICATES MASONRY WALL WHICH STOPS AT ROOF DECK.	SC-x	INDICATES STEEL COLUMN. SEE SCHEDULE ON SHEET SF601.
	INDICATES METAL ROOF DECK. SEE GENERAL STRUCTURAL ON SHEET SJ001.	MC-x	INDICATES MASONRY COLUMN TYPE. SEE SCHEDULE ON SHEET SF601.
	INDICATES MASONRY WALL TYPE, SEE SCHEDULE ON SHEET SB601.	ML-x	INDICATES MASONRY UNTEL TYPE. SEE SCHEDULE ON SHEET SF601.
		MCJ	INDICATES MASONRY CONTROL JOINT, SEE DETAIL B2/SB502.

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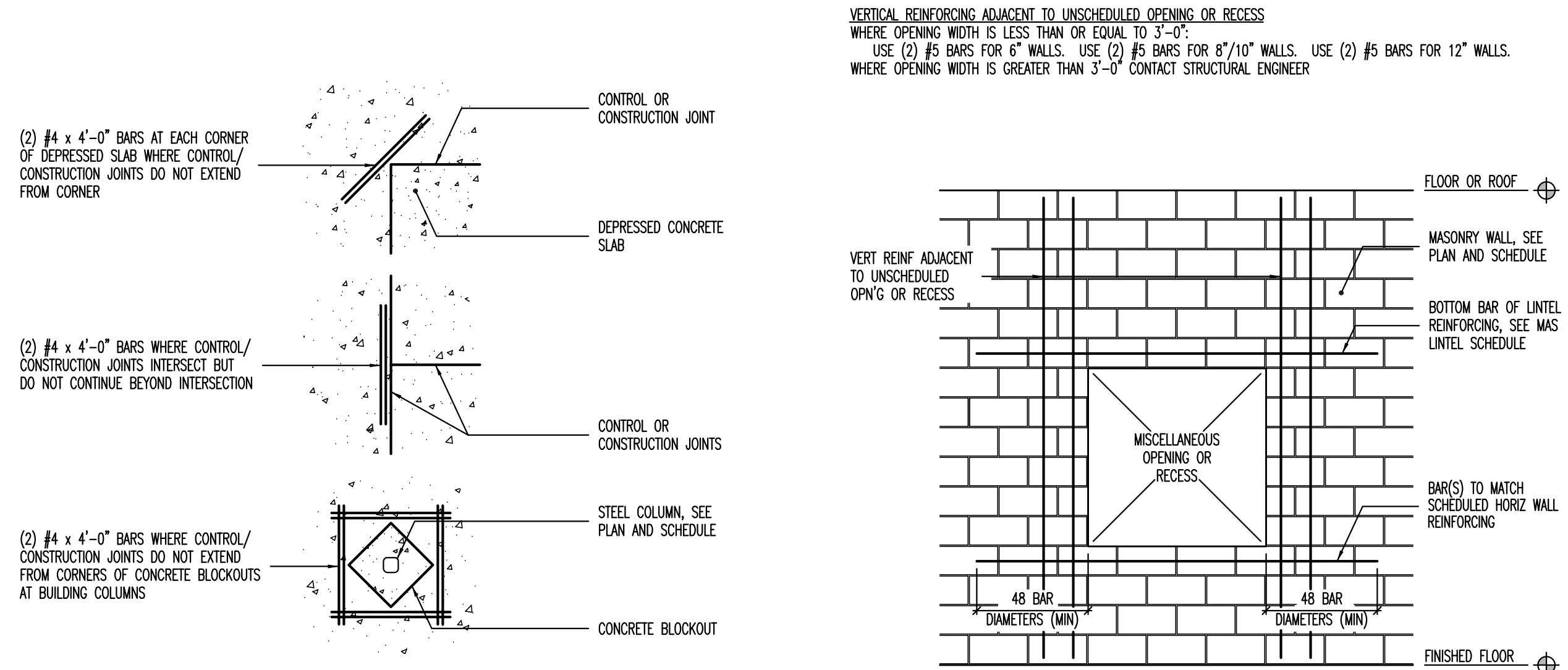
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SHEET TITLE

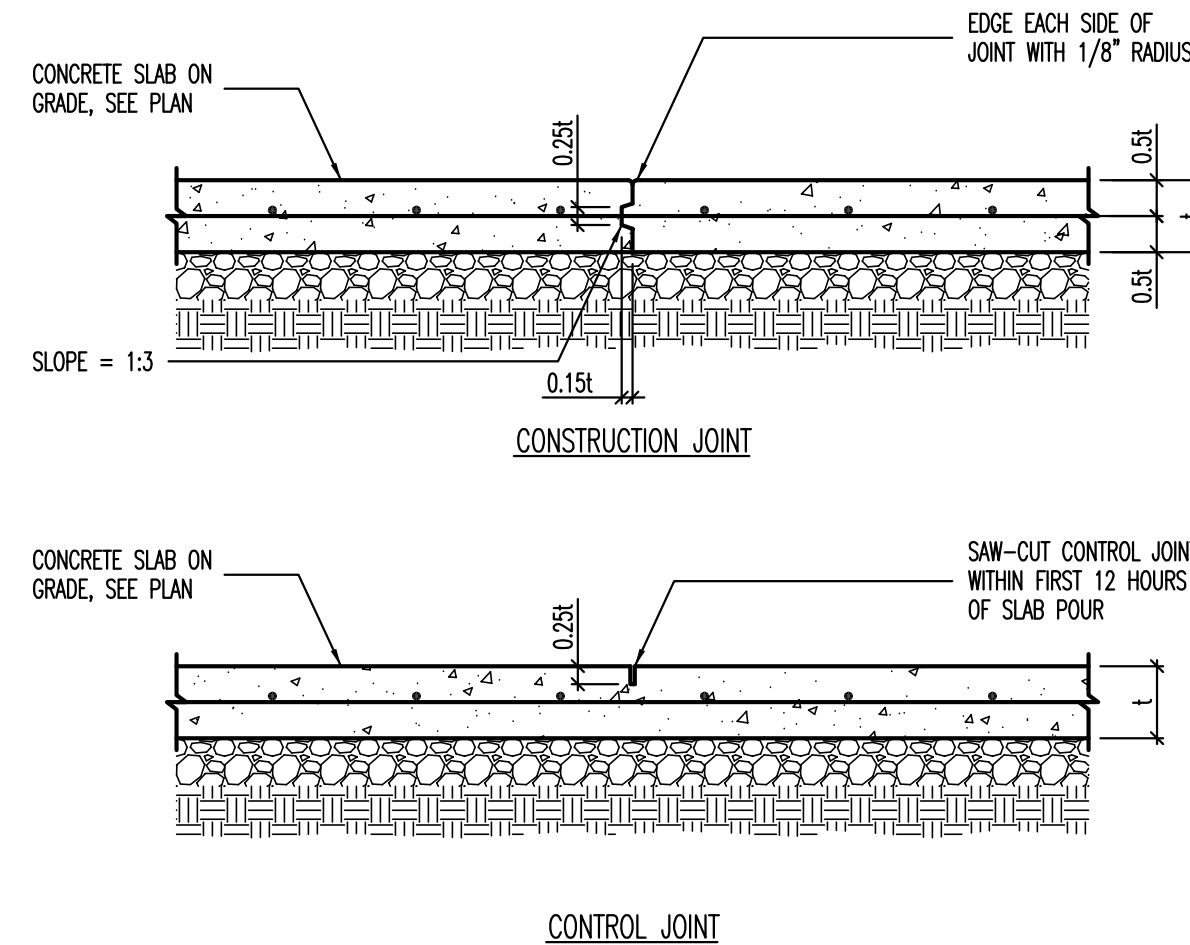
ROOF FRAMING  
PLAN

SF111

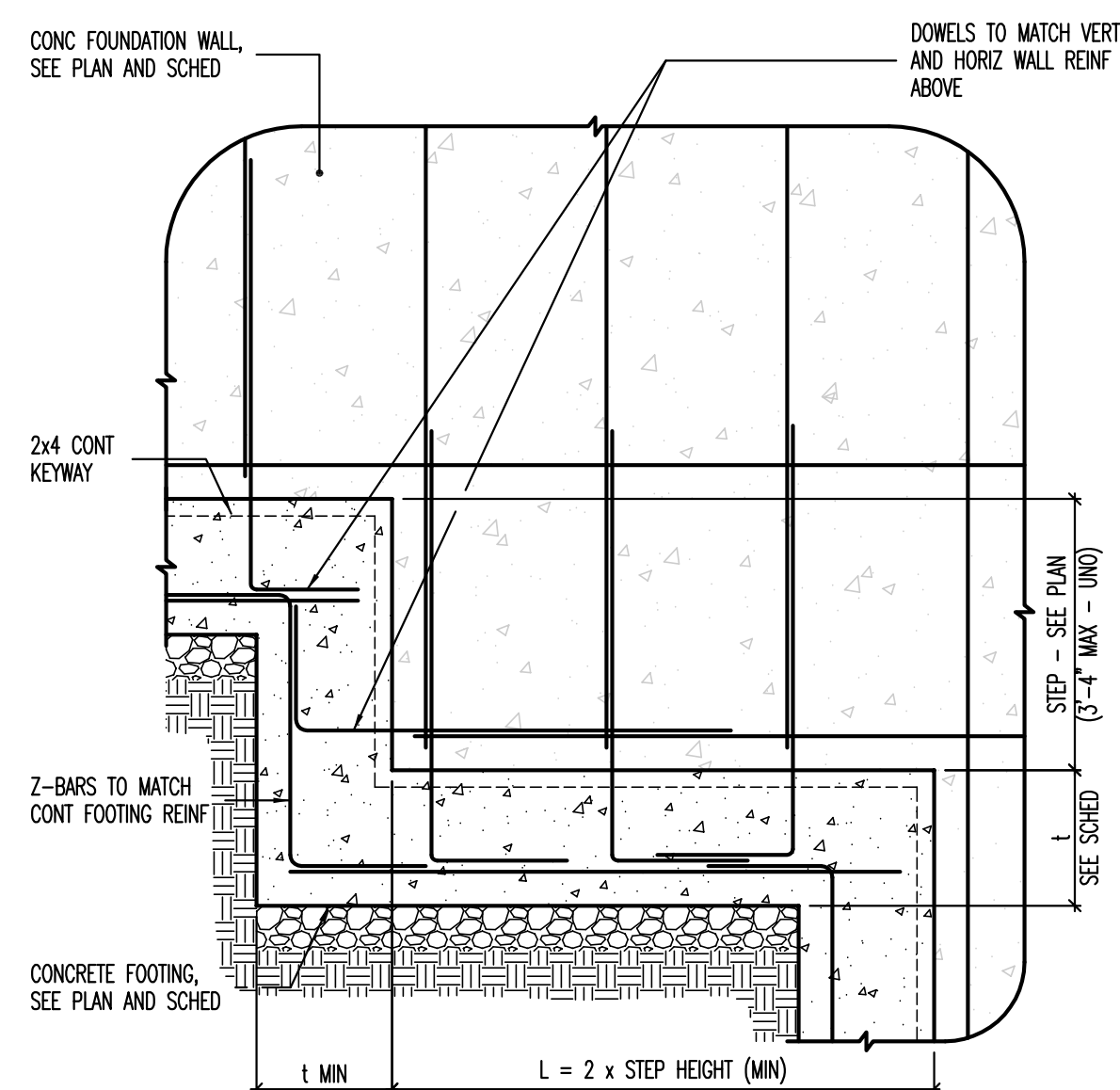




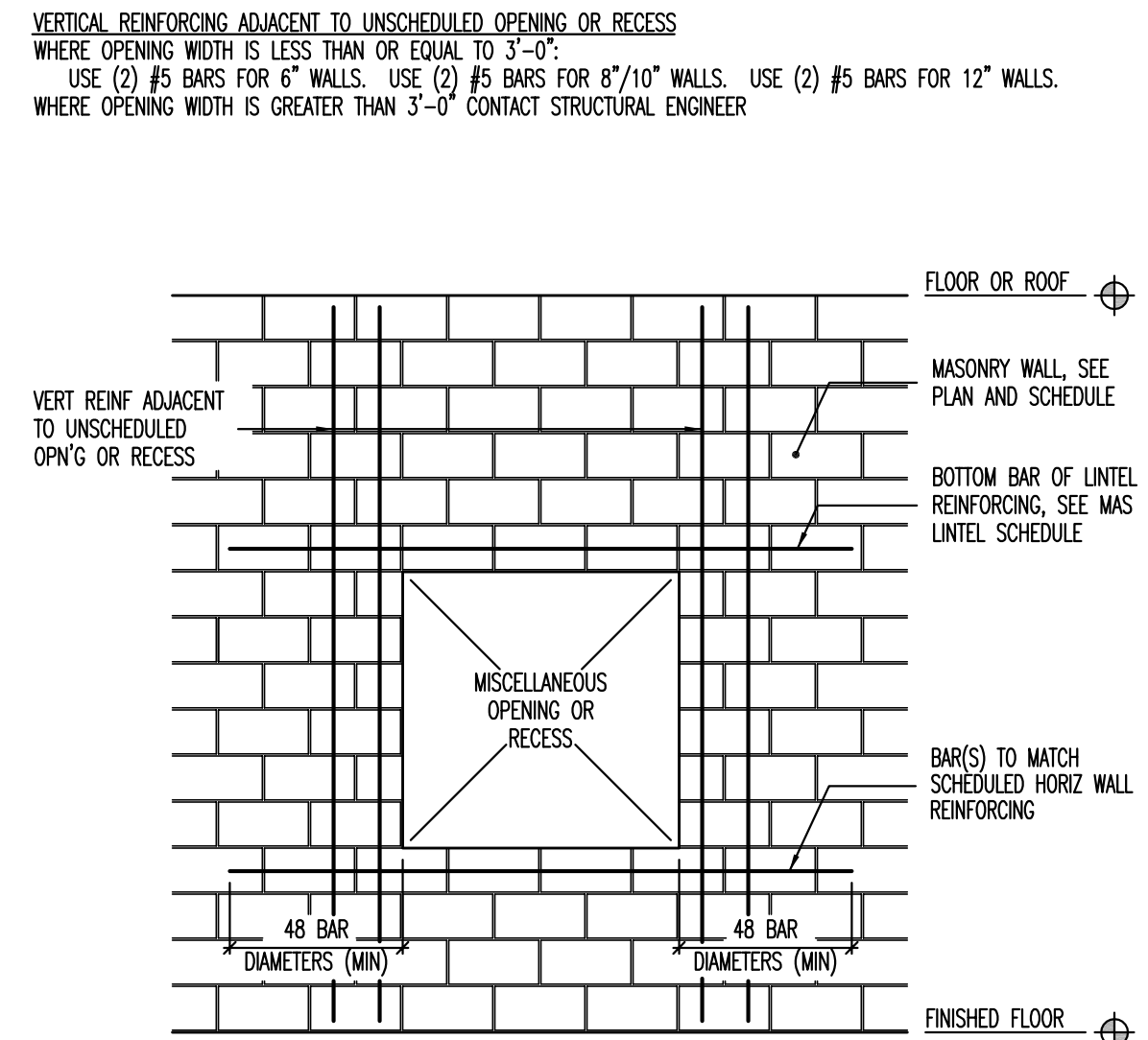
**C1 LOCATIONS REQUIRING ADDITIONAL SLAB REINFORCING**  
[PLAN VIEW] NO SCALE



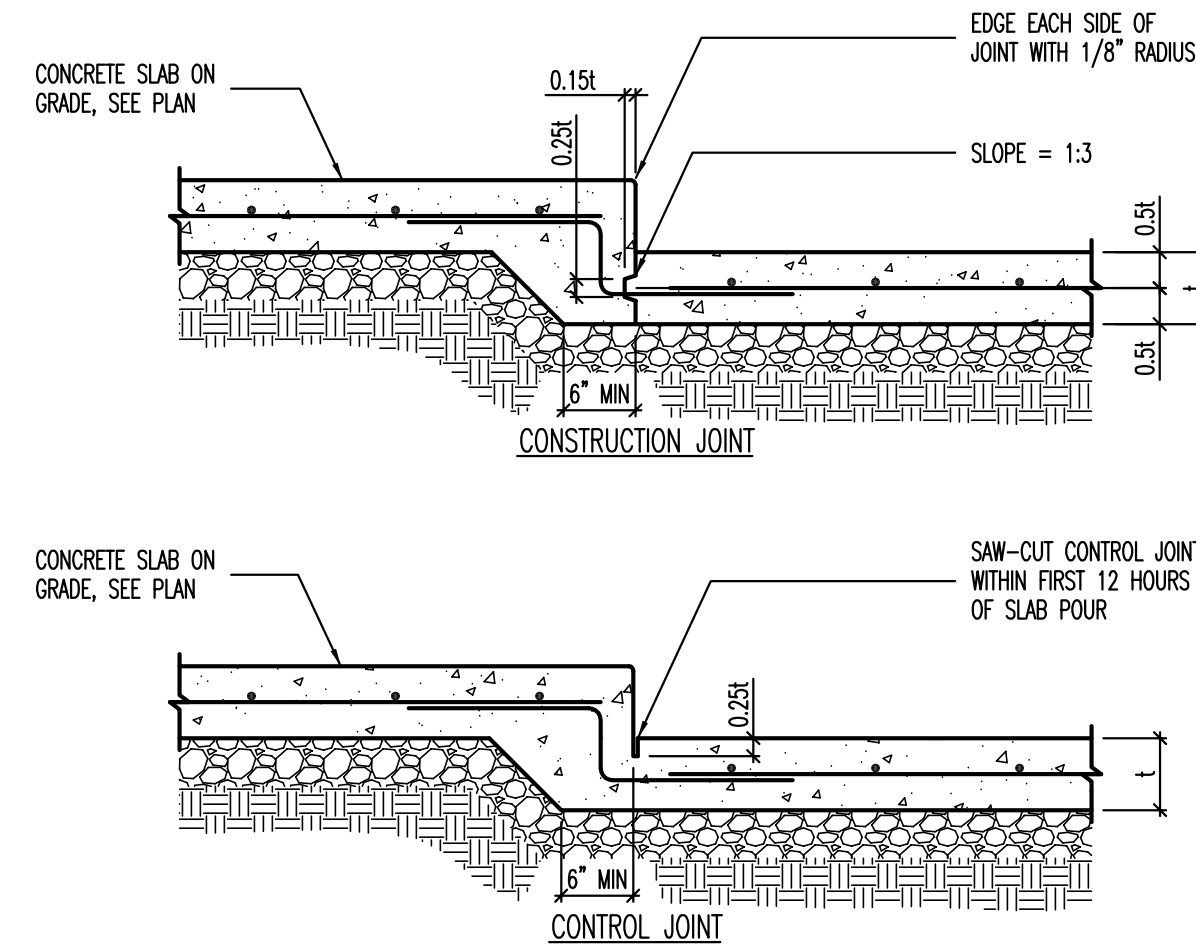
**B1** TYPICAL SLAB ON GRADE JOINT DETAILS



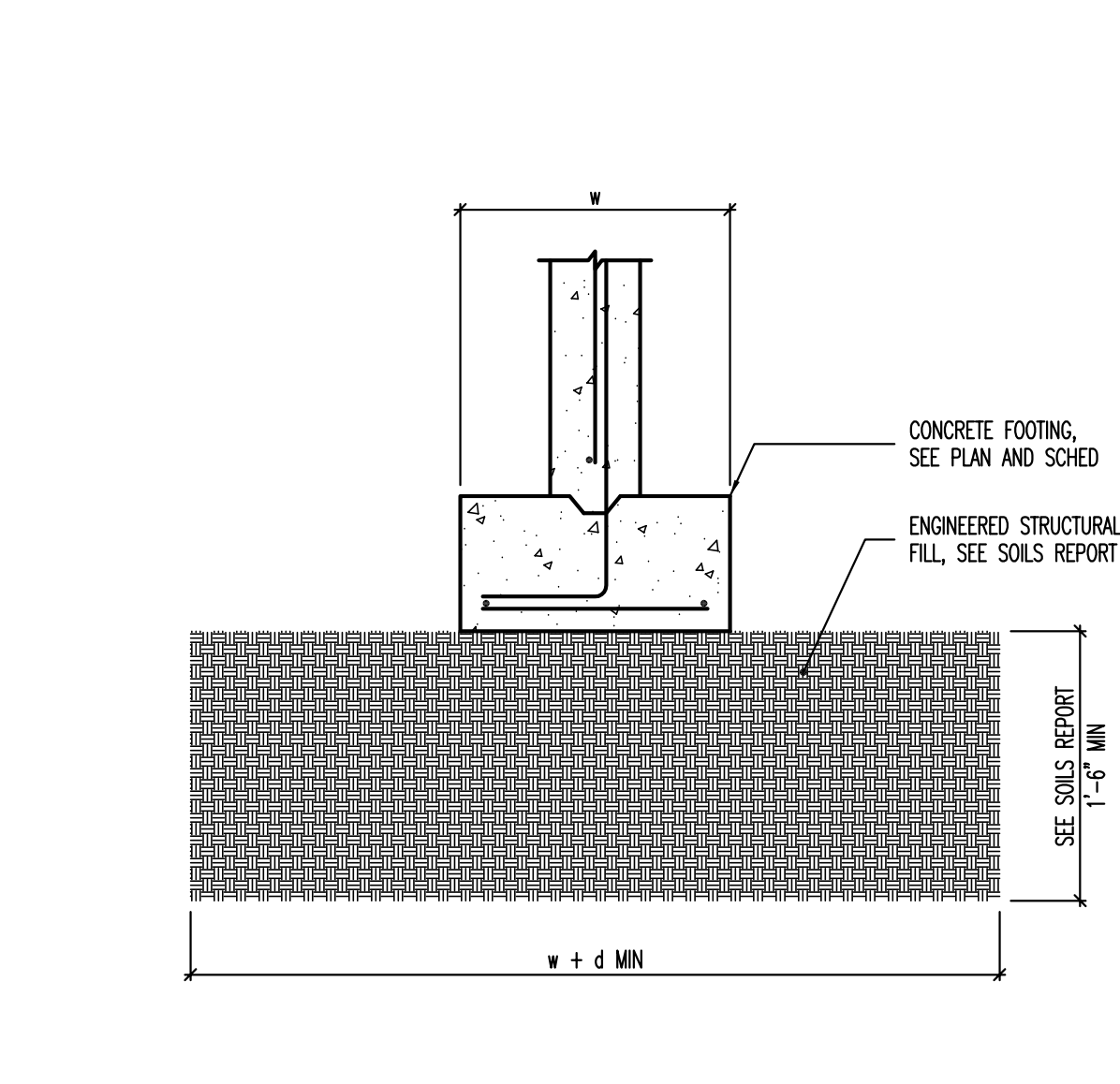
**A1 TYPICAL FOOTING STEP DETAIL** NO SCALE



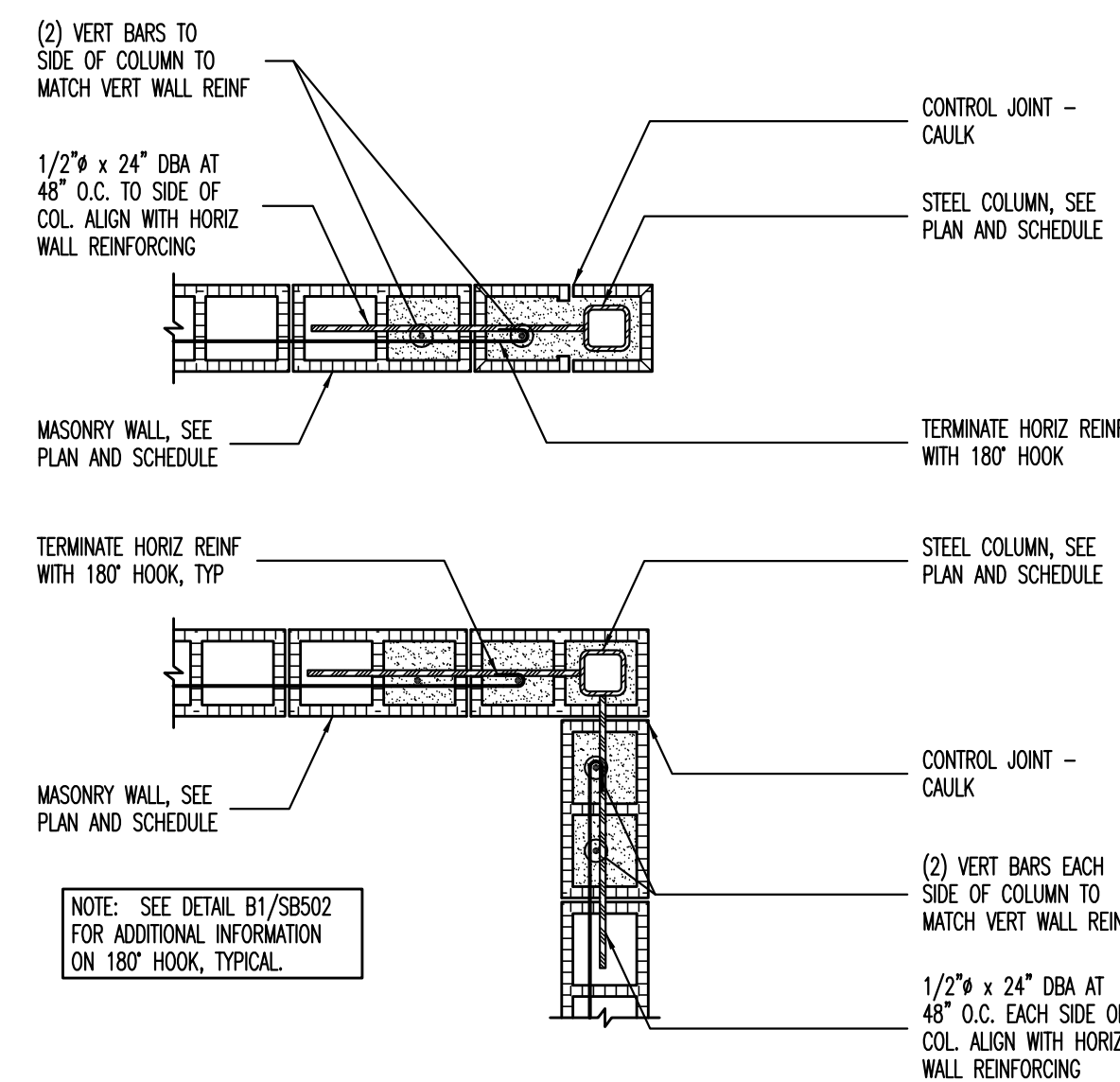
**C2 REINFORCING AT UNSCHEDULED MISCELLANEOUS OPENINGS  
OR RECESSES IN MASONRY WALLS** NO SCALE



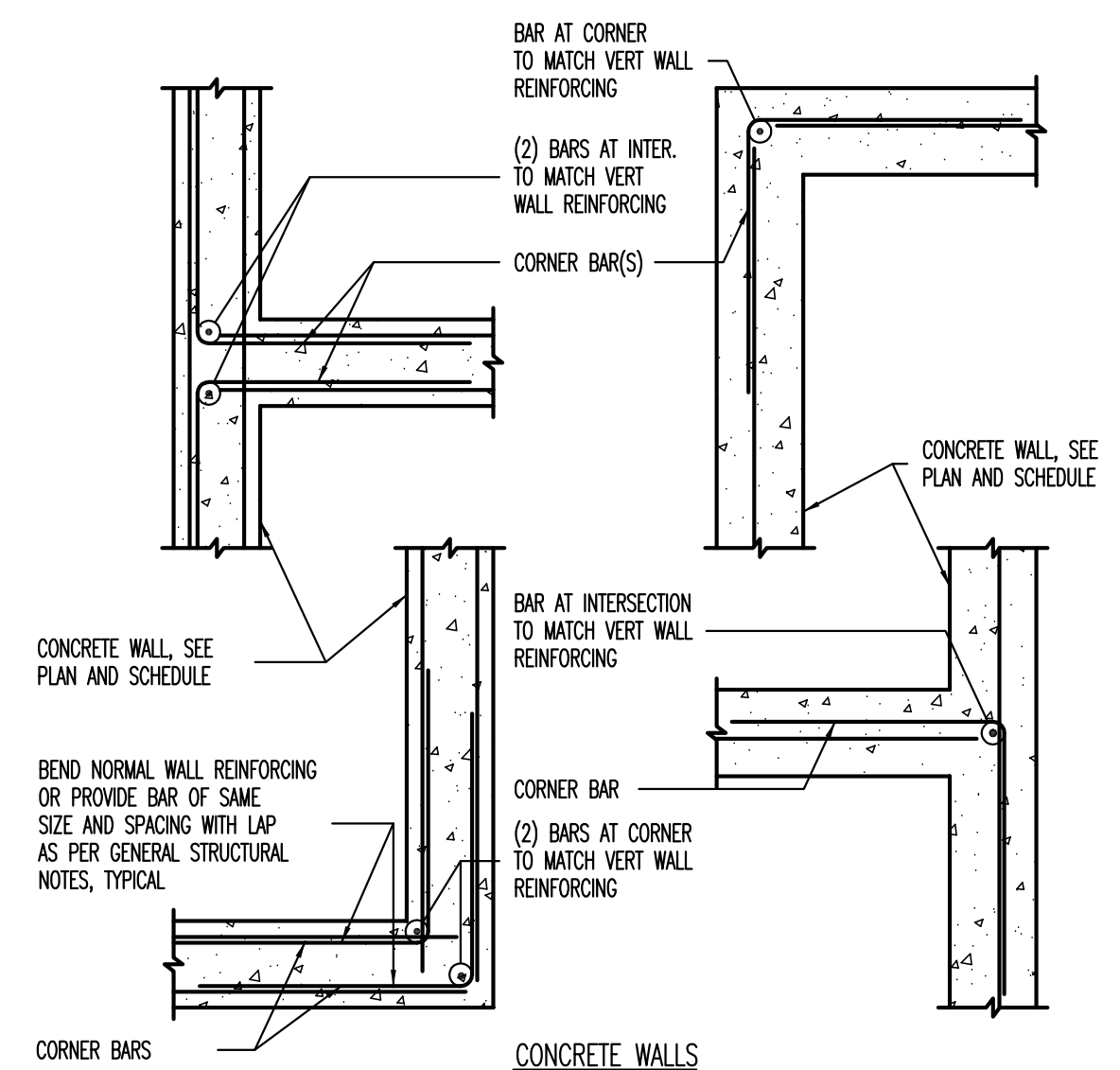
**B2** JOINT DETAILS AT SLAB DEPRESSIONS



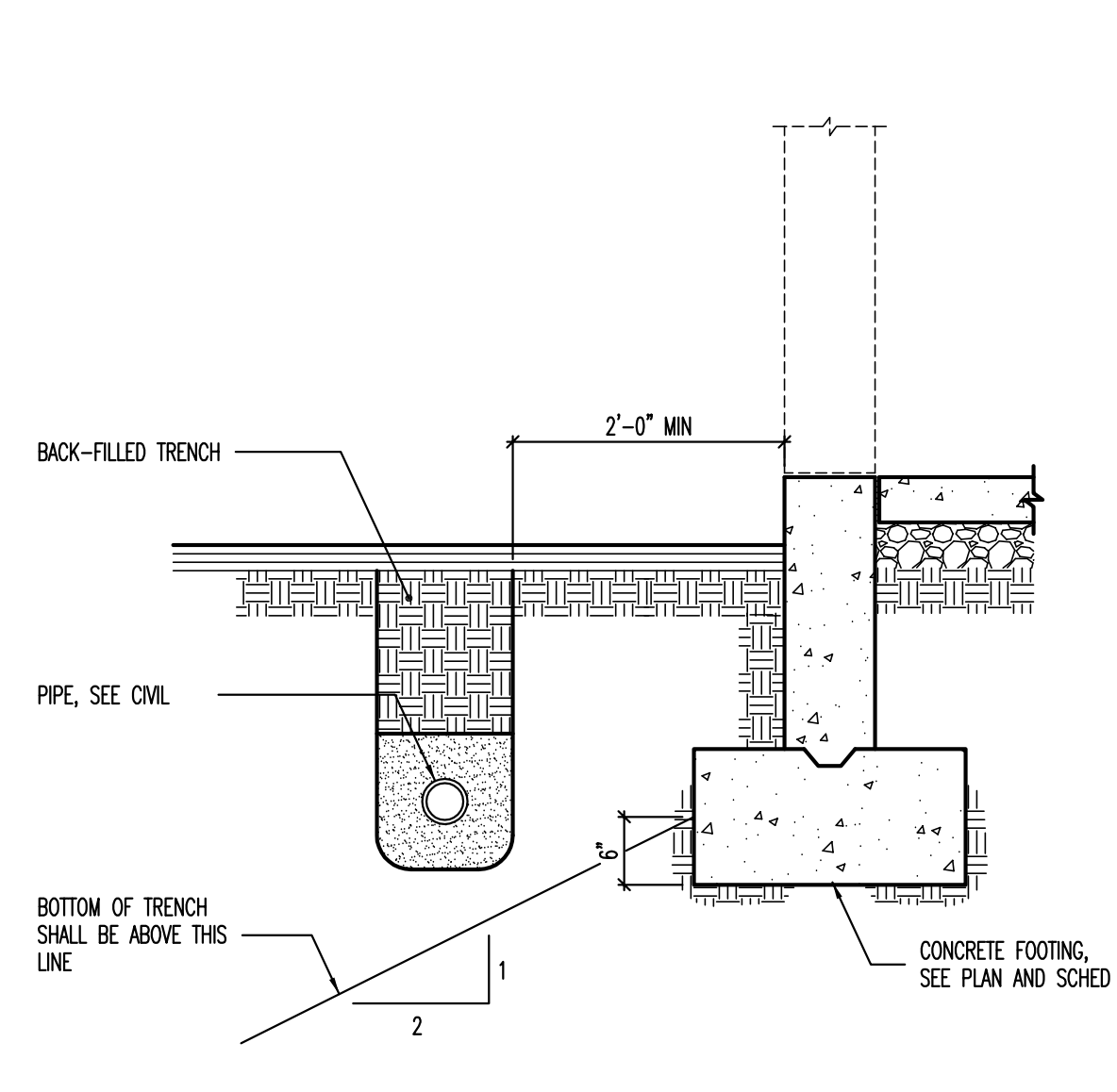
**A2 ENGINEERED STRUCTURAL FILL DETAIL** NO SCALE



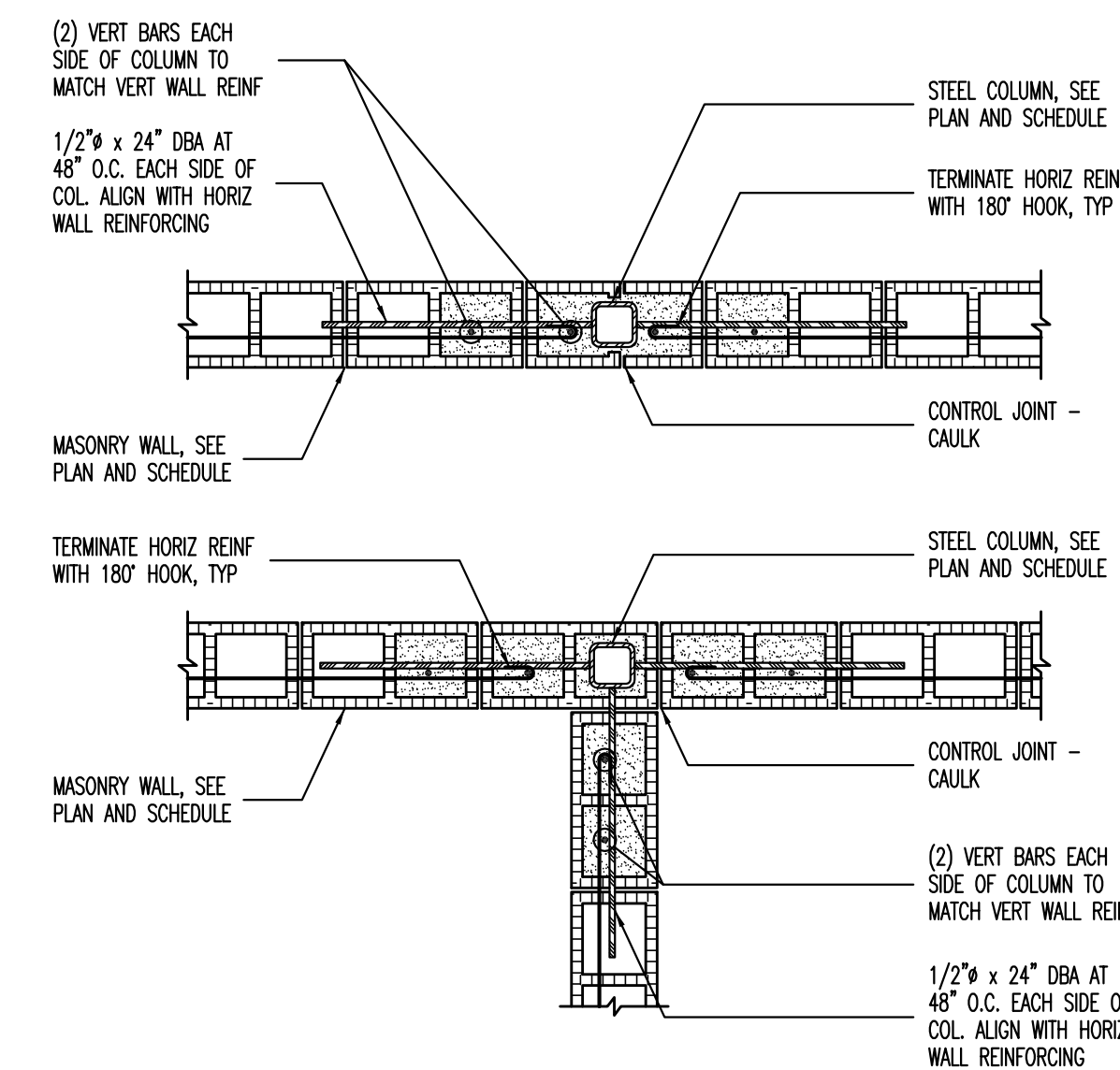
**C3** TYPICAL STEEL COLUMN BURIED IN MASONRY WALLS  
[PLAN VIEW]



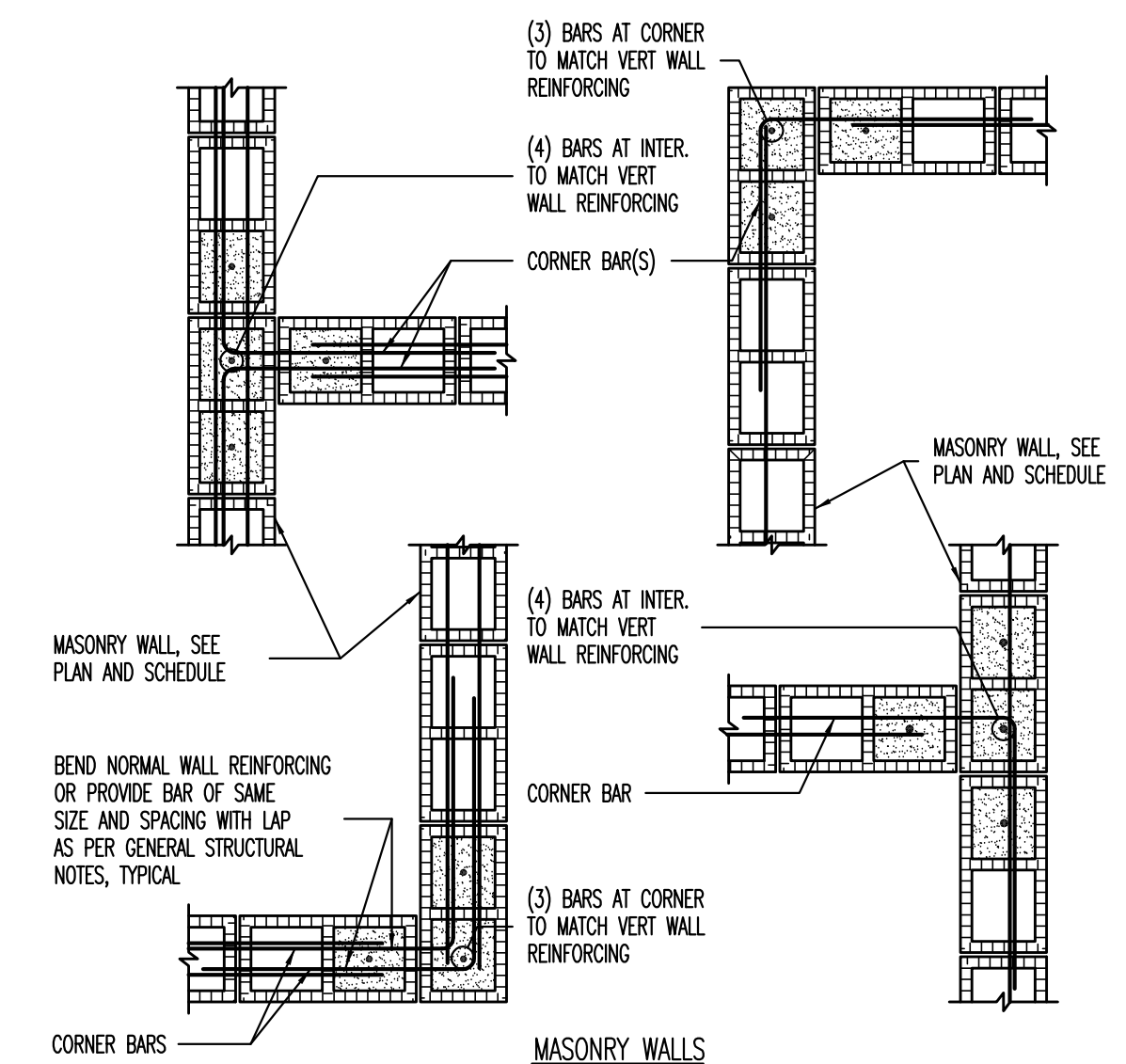
**B3** TYPICAL CORNER WALL REINFORCING  
[PLAN VIEW]



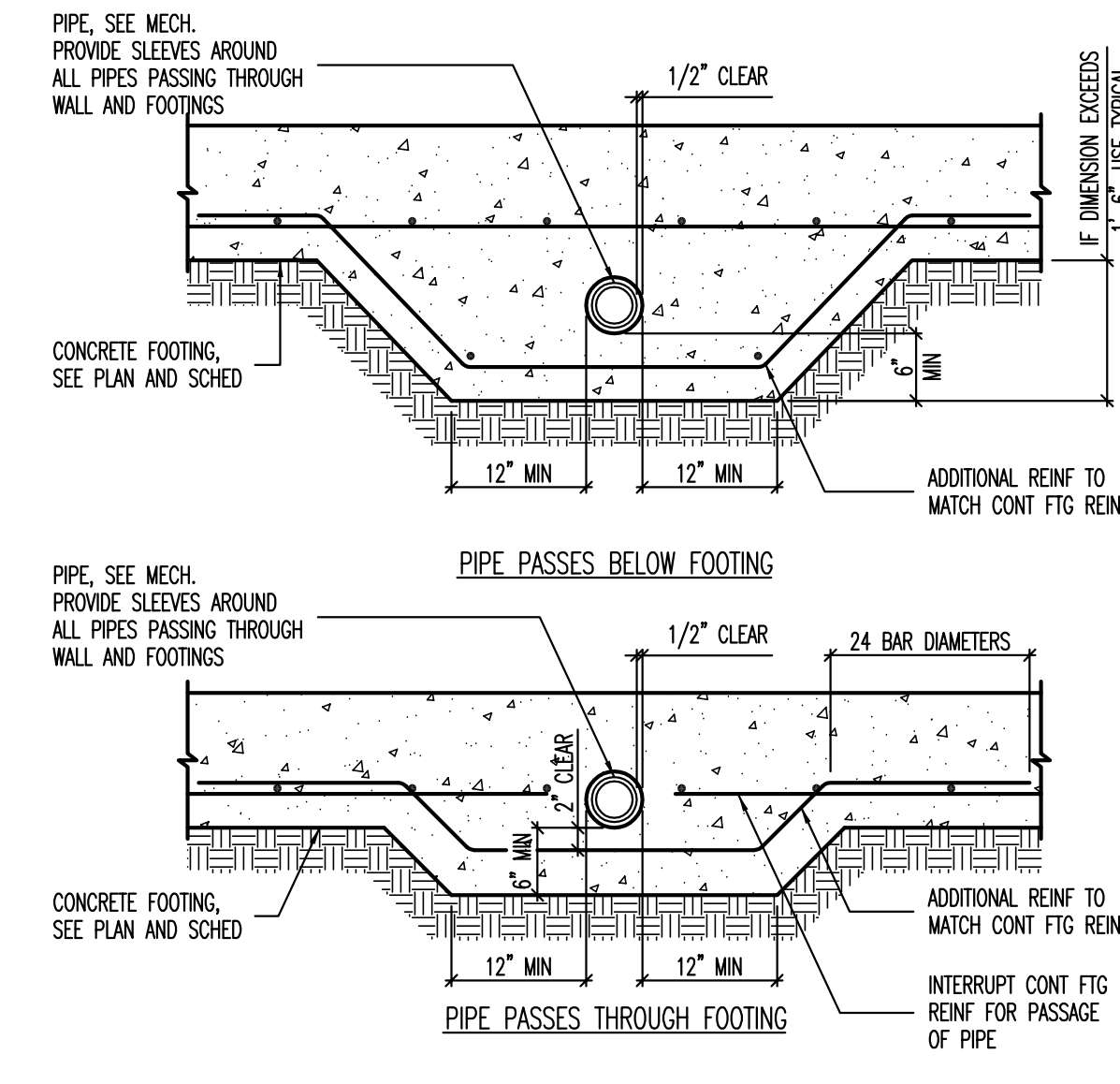
## A3 CONDITION AT PIPE PARALLEL TO CONCRETE FOOTING



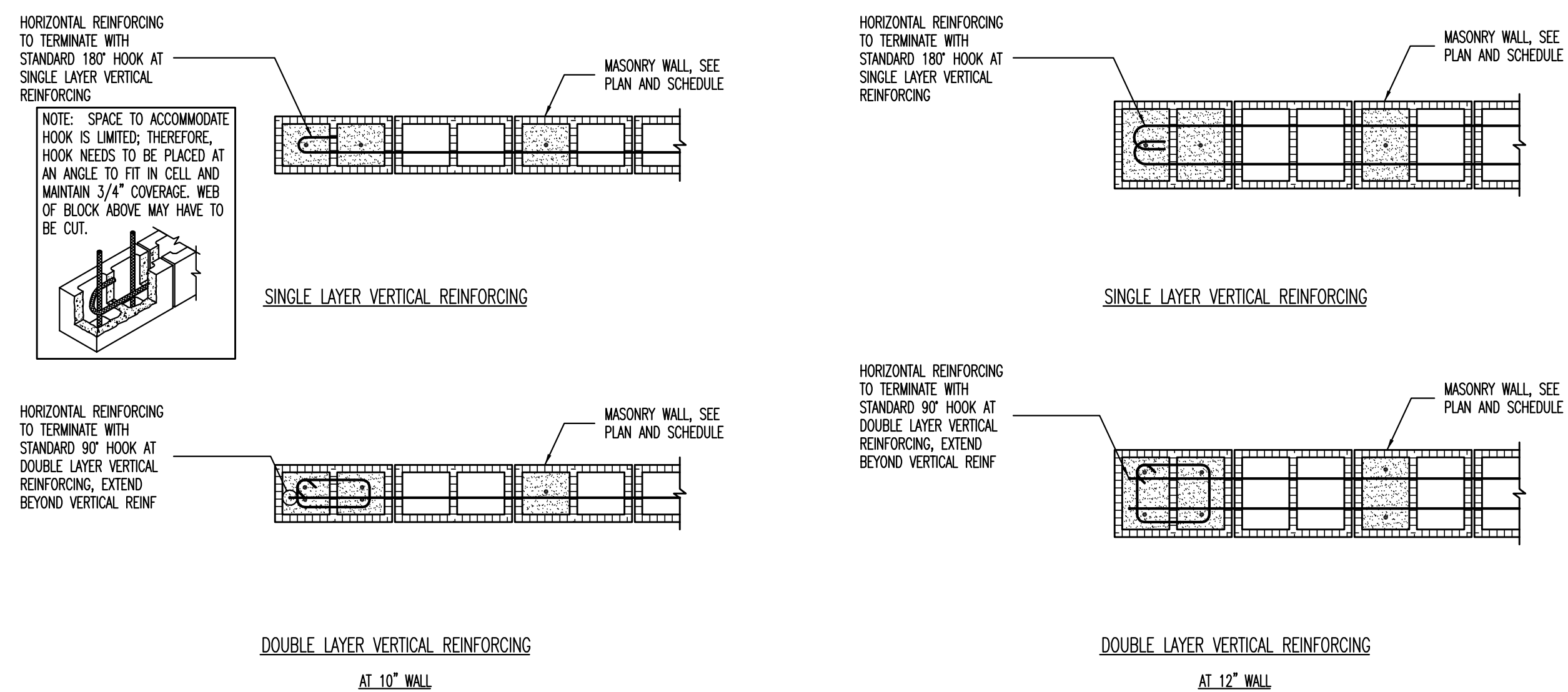
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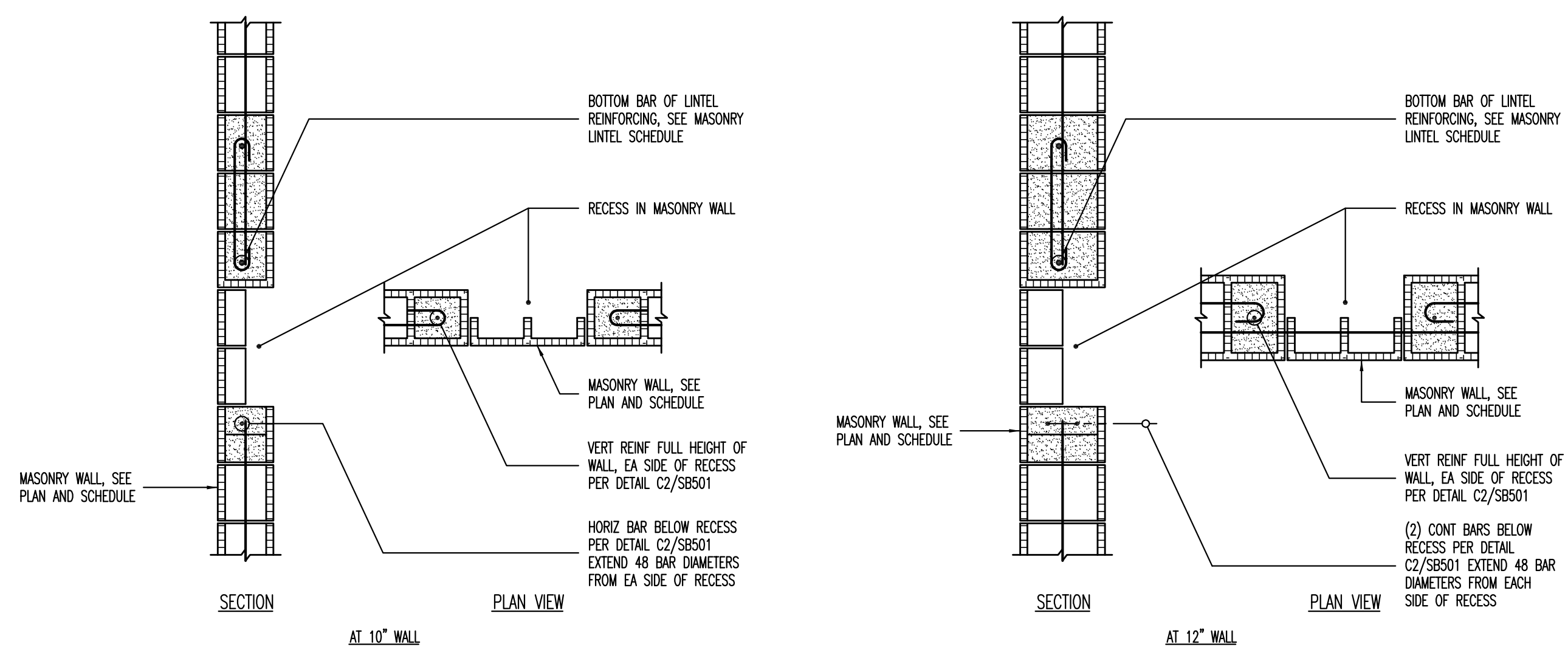
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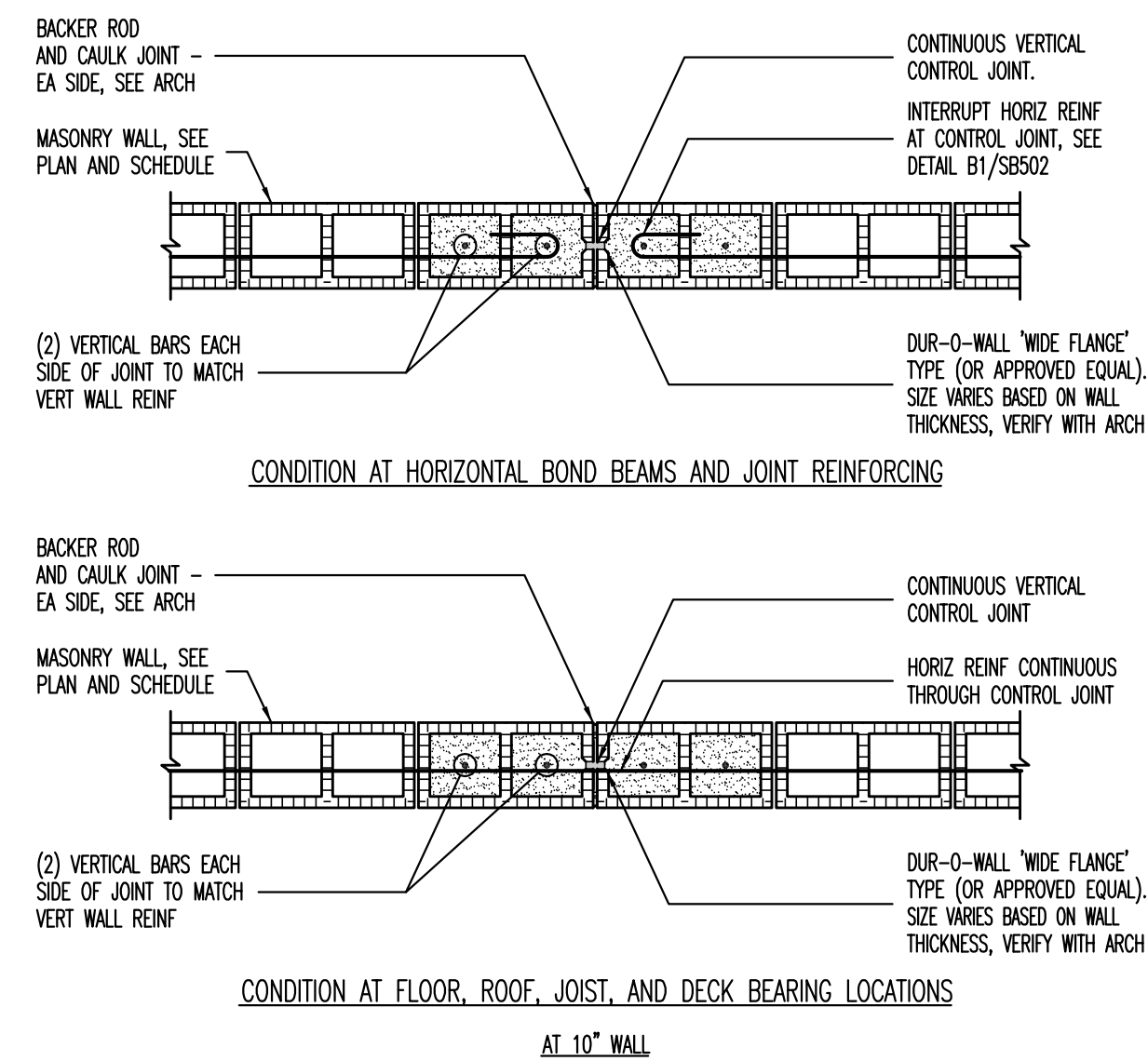
## A4 CONDITIONS AT PIPE PERPENDICULAR TO FOOTING



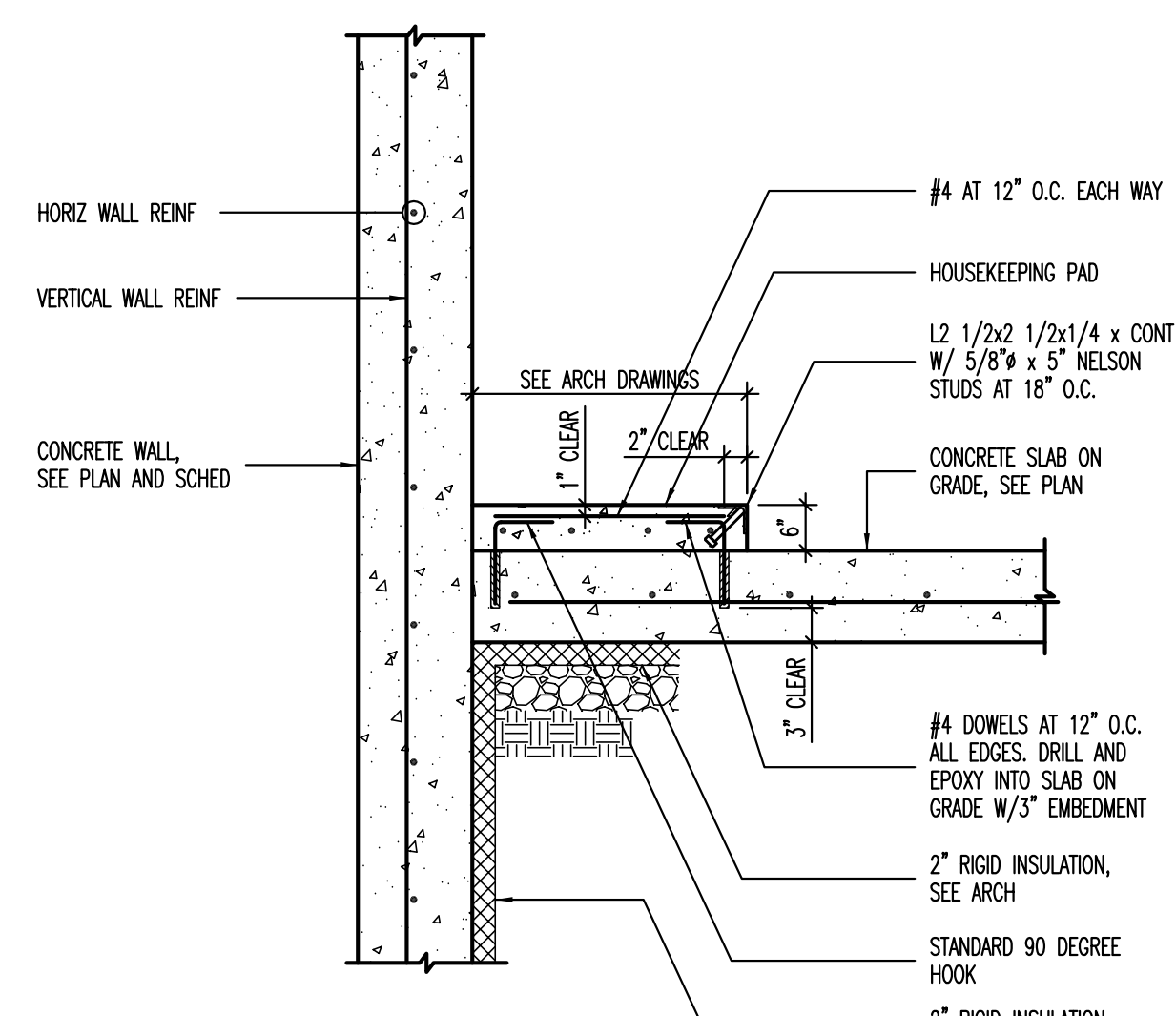
**B1** **TERMINATION OF HORIZONTAL REINFORCING**  
**IN 12" OR 10" MASONRY WALL [PLAN VIEW]**



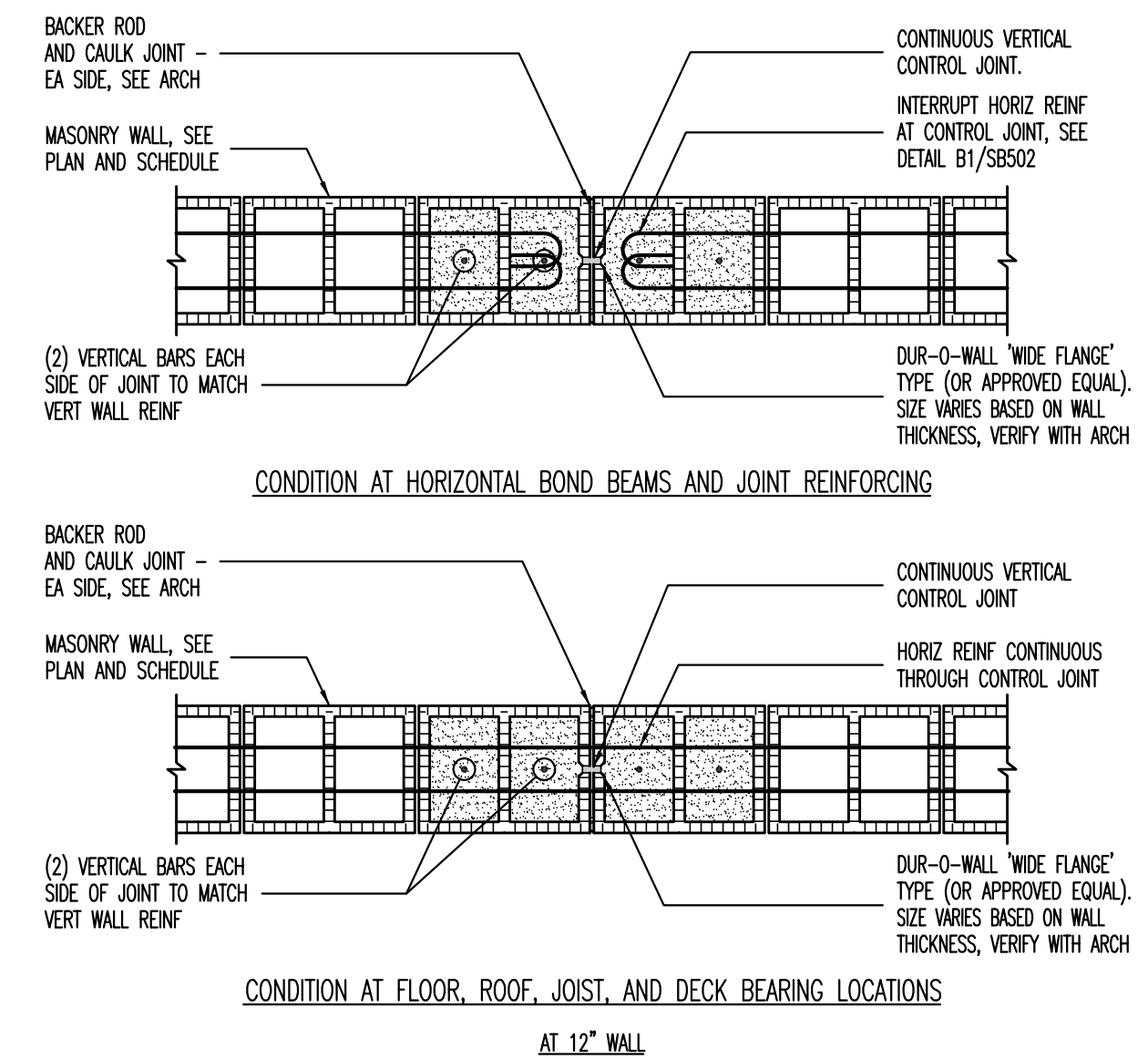
**A1 TYPICAL REINFORCING AT RECESS IN MASONRY WALLS**



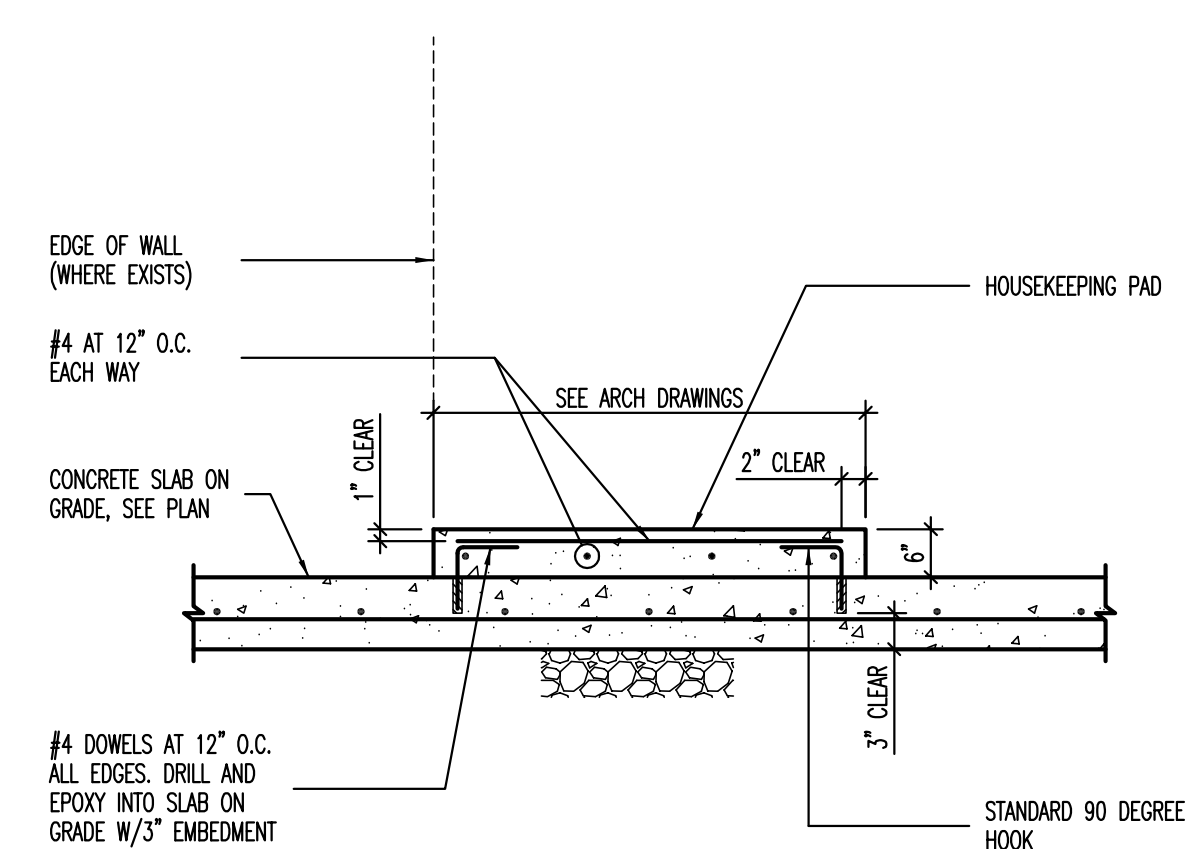
**B2** MASONRY CONTROL JOINT DETAIL AT 12" OR 10"  
MASONRY WALLS



## A2 TYPICAL HOUSEKEEPING PAD



**A3 TYPICAL HOUSEKEEPING PAD**



**A3 TYPICAL HOUSEKEEPING PAD**



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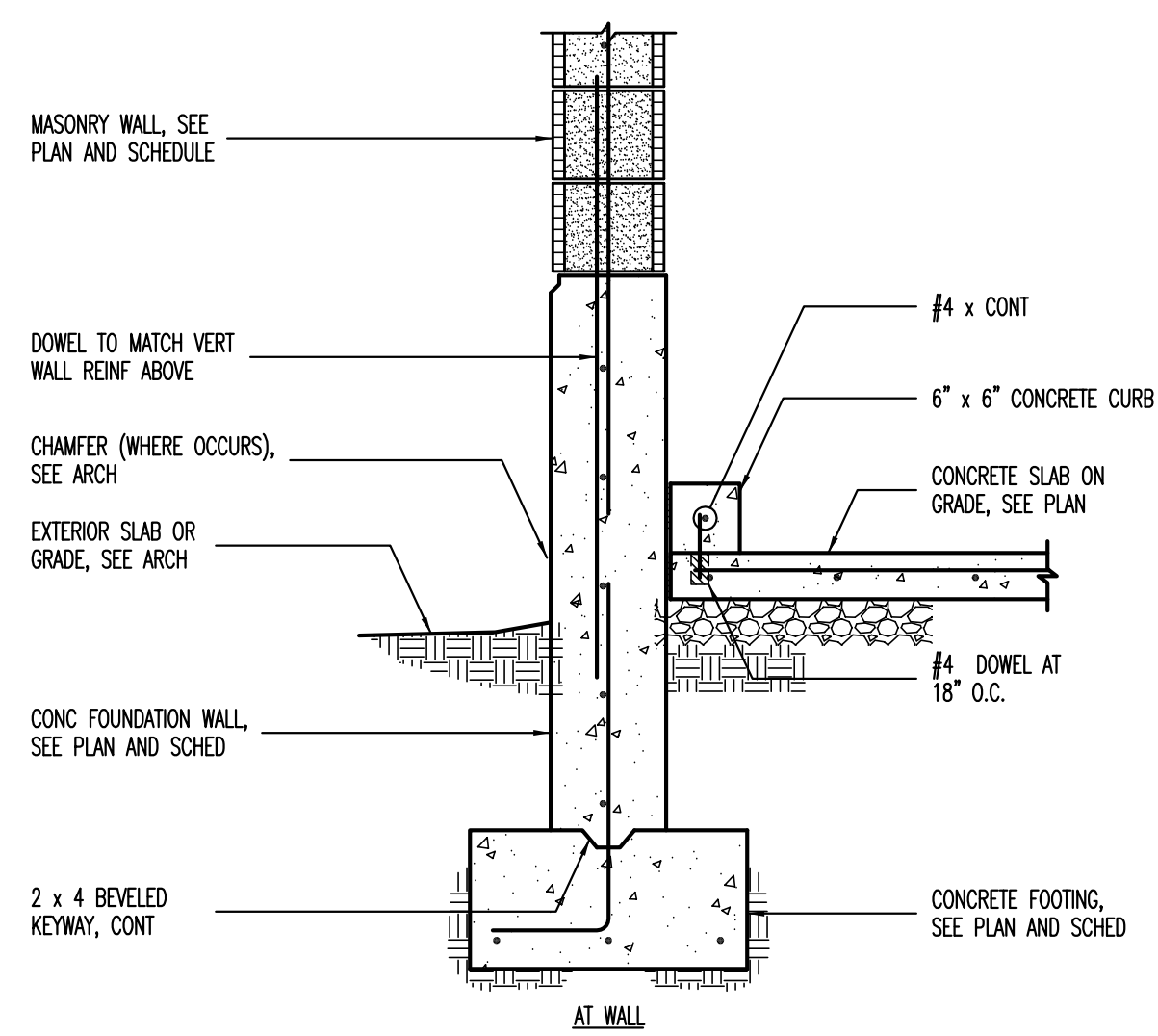
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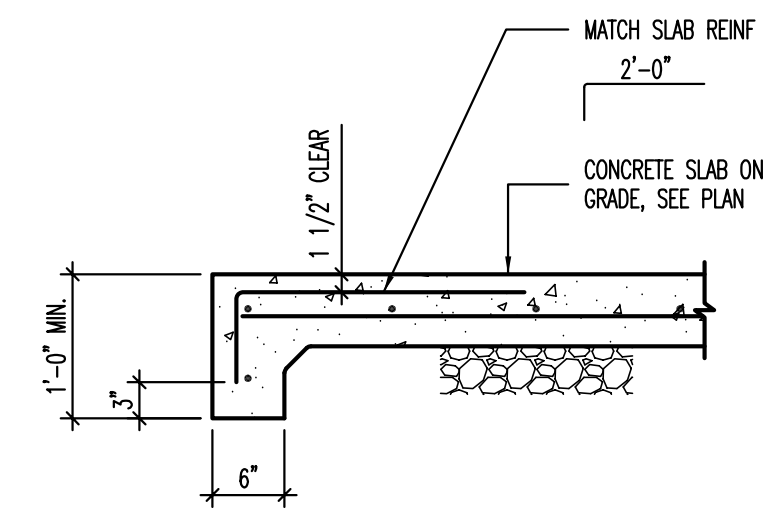
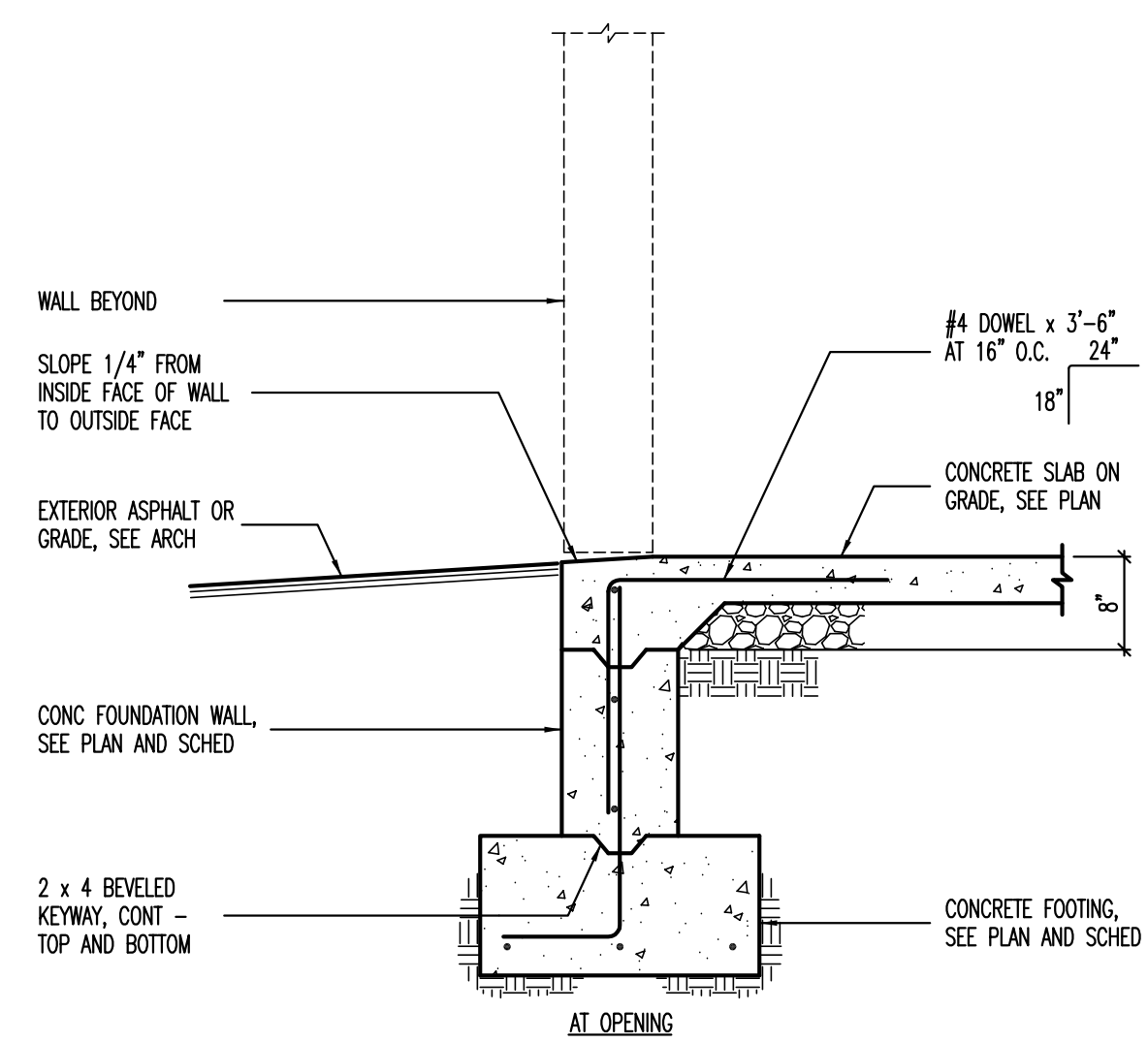
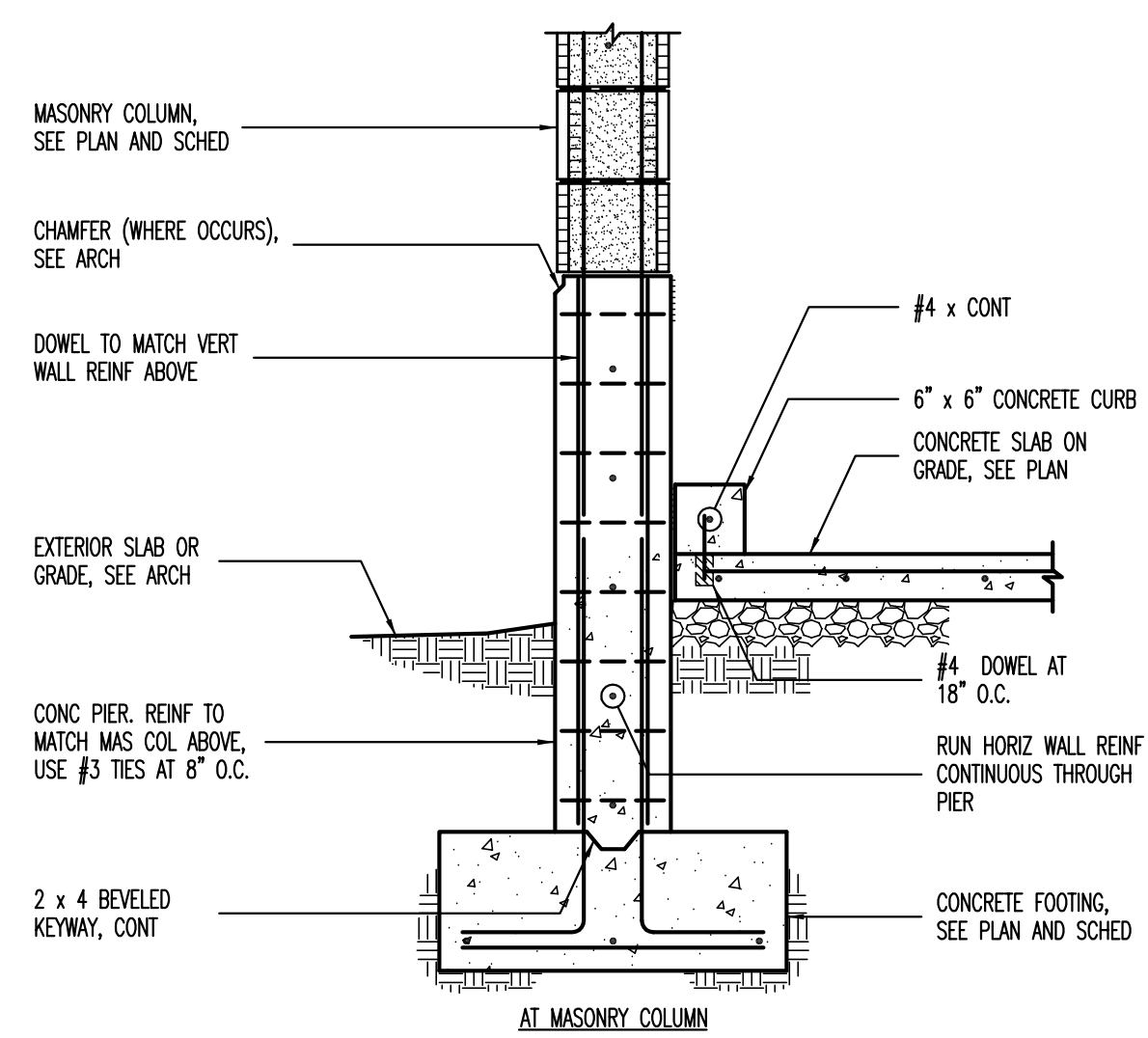
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DATE: FEBRUARY, 2009

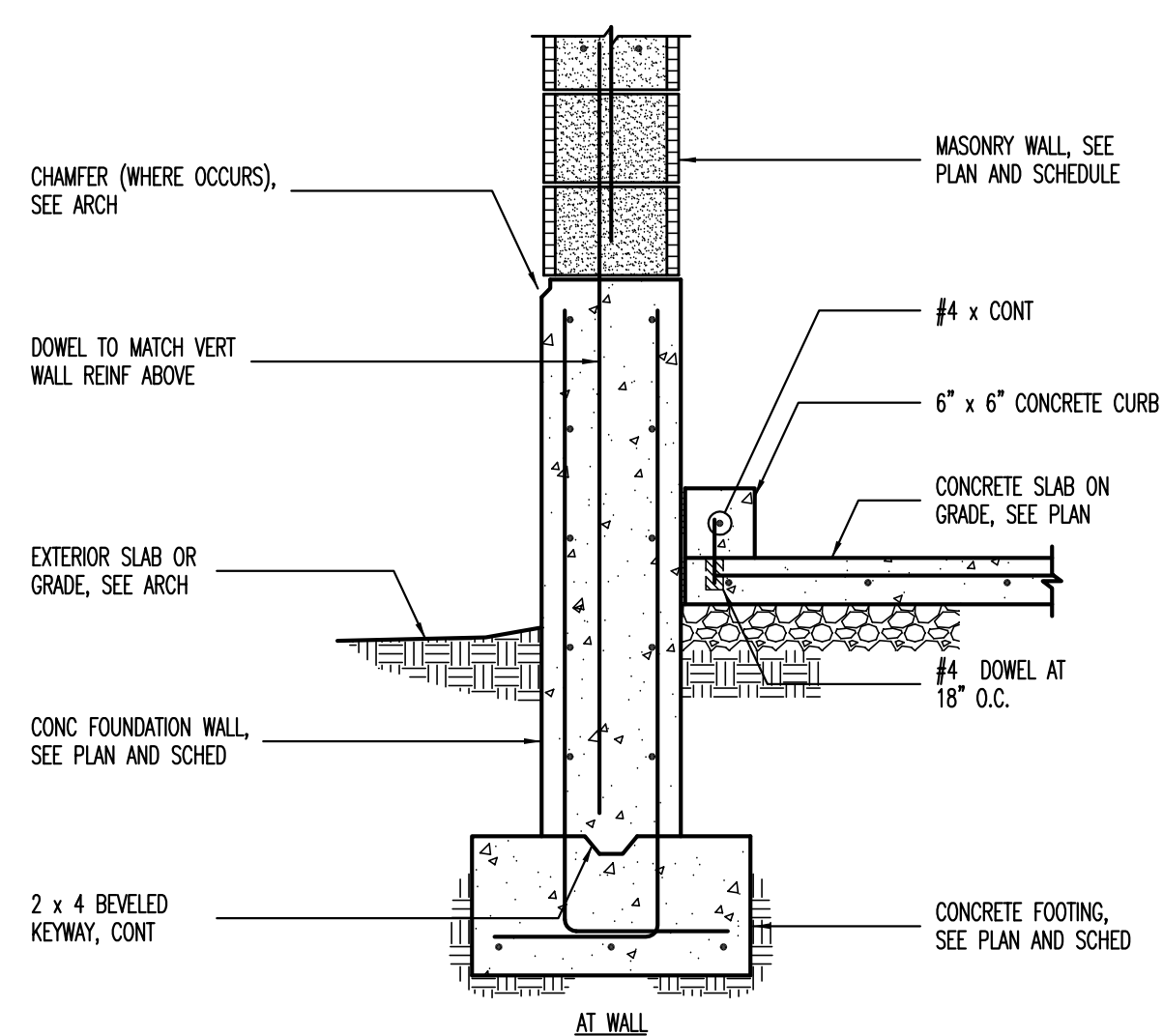
## FOOTING AND FOUNDATION DETAIL



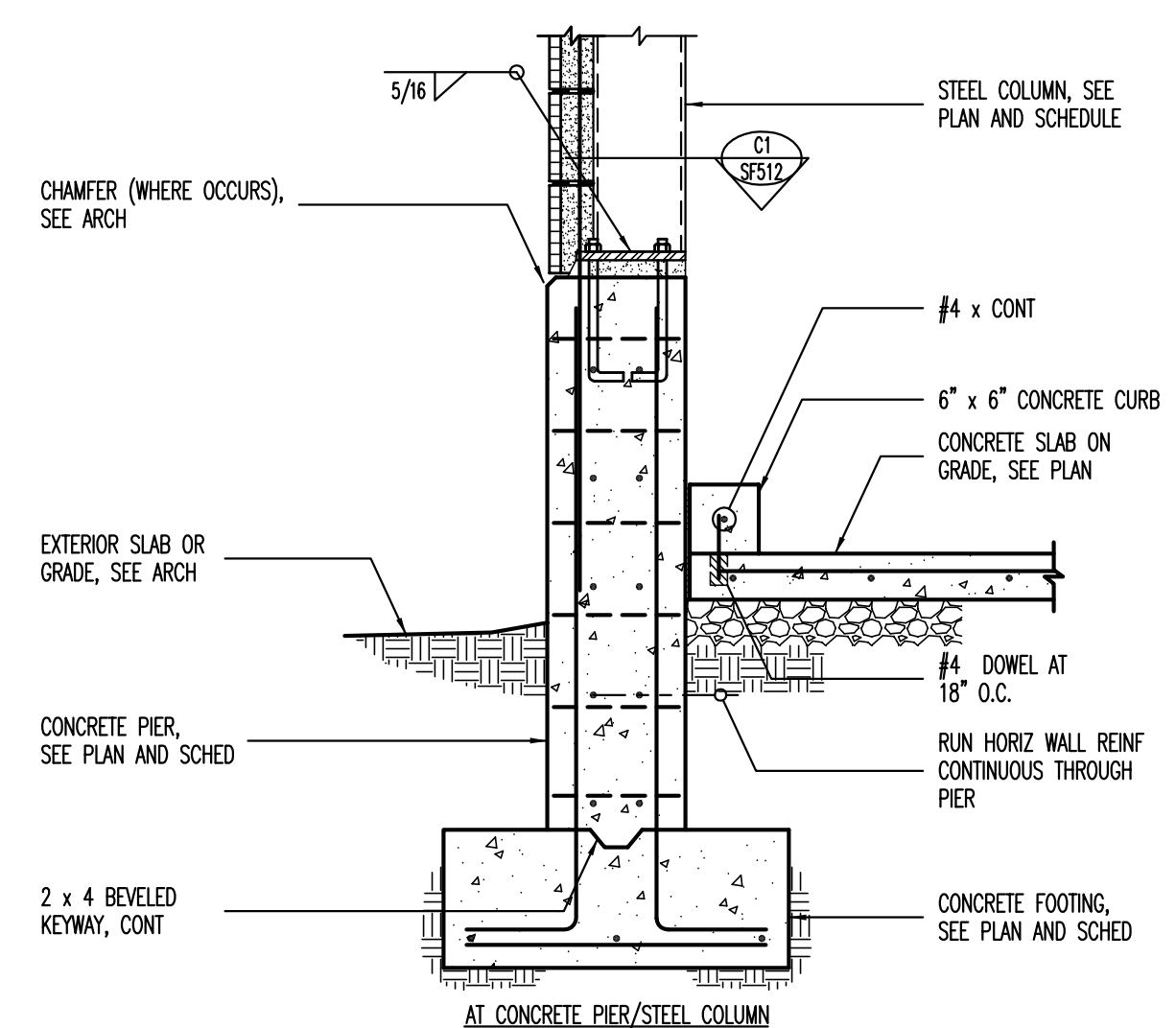
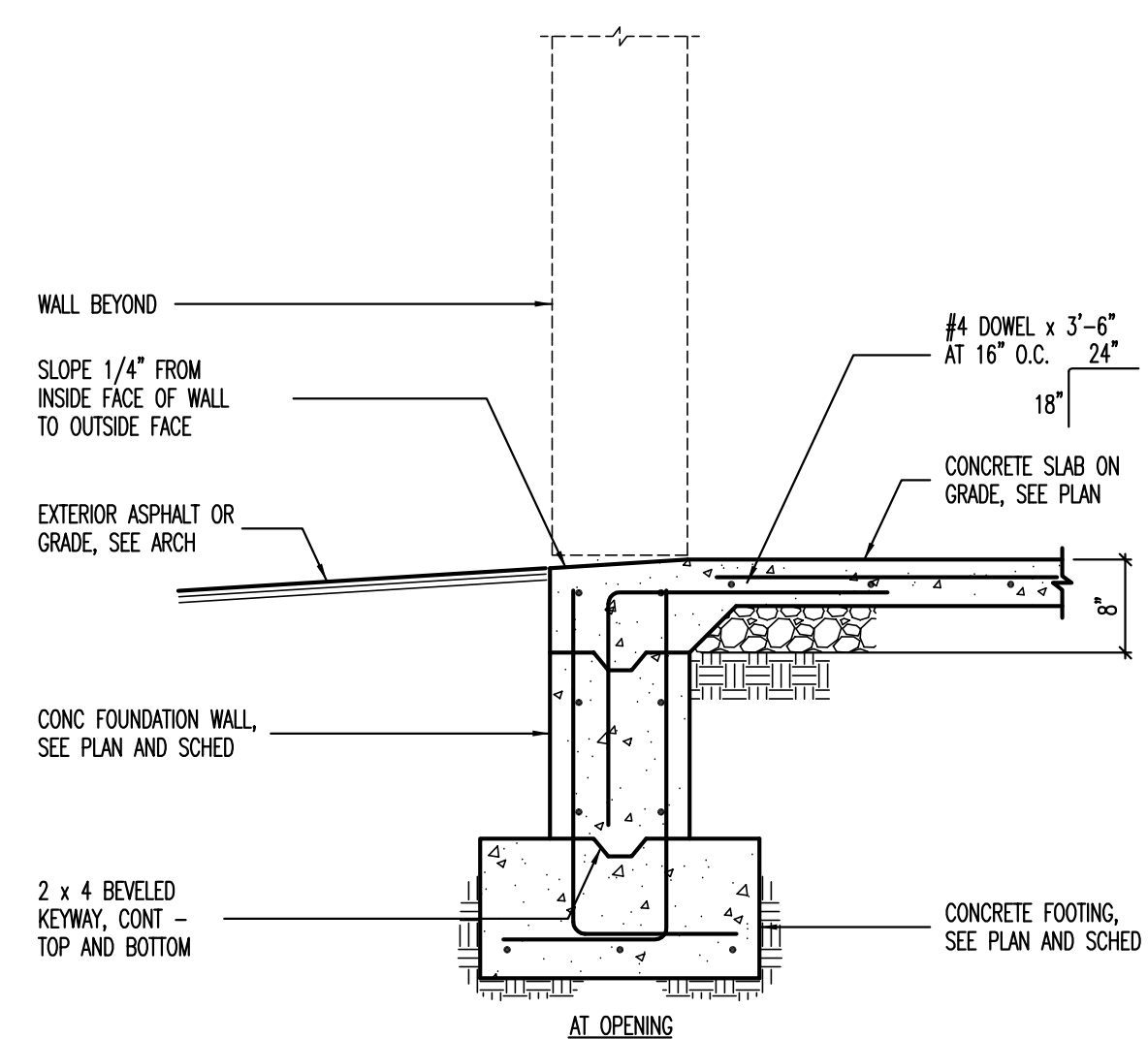
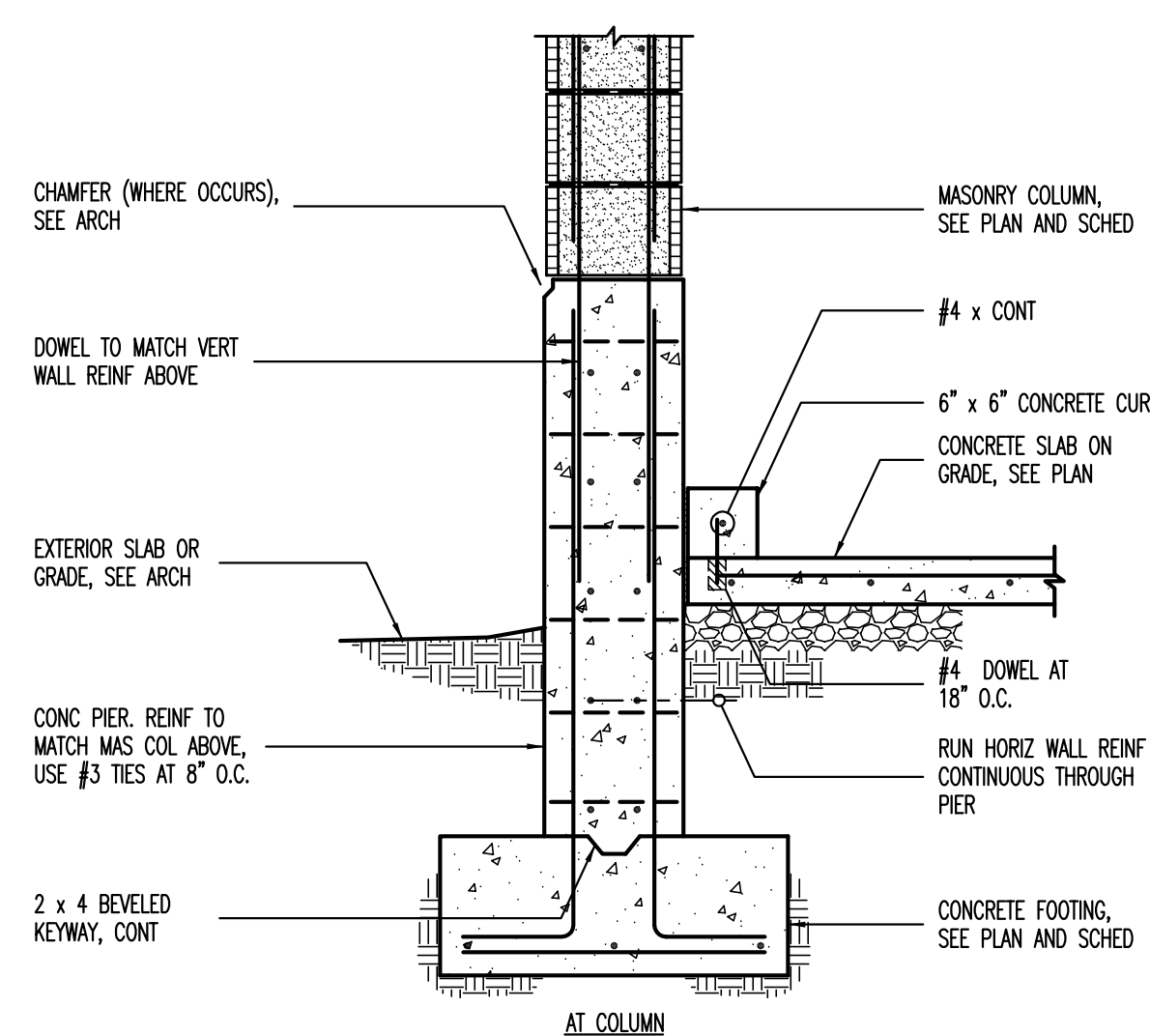
**B1 FOUNDATION WALL DETAIL AT 10" MASONRY WALL**



**B4 SLAB TURNDOWN DETAIL**



**A1 FOUNDATION WALL DETAIL AT 12" MASONRY WALL**



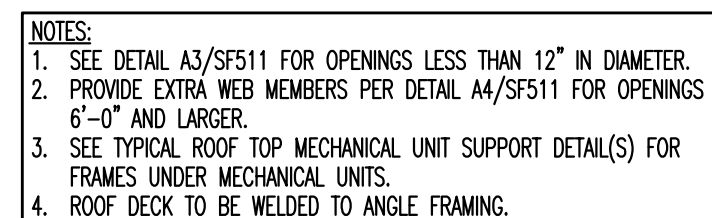
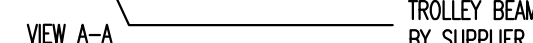
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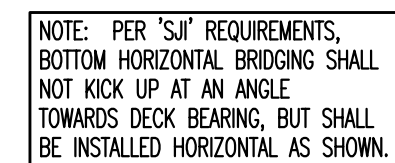


**NOTES:**

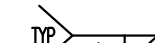
1. WHERE THE MECHANICAL UNIT WEIGHS LESS THAN 700 lbs, THE L6x4 SUPPORT ANGLES MAY BE CHANGED TO L5x3x1/4.
2. SOLID BLOCK THE FLUTES OF THE STEEL DECK UNDER THE CURB OF THE MECHANICAL UNIT. THIS MAY BE DONE WITH A HSS1.1/2x1.1/2x3/16 x 0'-4" TACK WELDED TO THE STEEL DECK OR WITH SOLID BLOCKING CONNECTED TO THE STEEL DECK.
3. ROOF DECK TO BE WELDED TO ANGLE FRAMING.



AJ  
248-20



NOTE: WHERE CONCENTRATED LOADS ON OPEN WEB JOISTS ARE LOCATED MORE THAN 6" FROM THE PANEL WORK POINTS AT EITHER THE TOP OR BOTTOM CHORD, THE CONTRACTOR SHALL INSTALL ADDITIONAL DIAGONAL WEB MEMBERS AT THE LOCATION OF THE CONCENTRATED LOAD.



NO SCALE

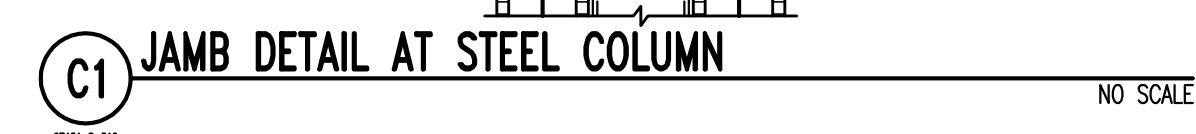
ISSUE

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DFCM CONTRACT NO:	
ARCHIPLEX PROJECT NO:	
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CHECKED BY:	
SCALE:	
DATE:	FEBRUARY, 2009

## ROOF FRAMING DETAIL

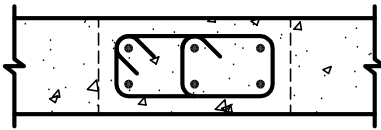
SF511





CONCRETE FOOTING SCHEDULE												
MARK	WIDTH	LENGTH	DEPTH	REINFORCING CROSSWISE				REINFORCING LENGTHWISE				COMMENTS
				No.	SIZE	LENGTH	SPACING	No.	SIZE	LENGTH	SPACING	
FTS2.0	2'-0"	CONT	12"	—	—	—	—	3	#4	CONT	EQ	THICKENED SLAB
FC1.5	1'-6"	CONT	12"	—	—	—	—	2	#5	CONT	EQ	
FC2.0	2'-0"	CONT	12"	—	—	—	—	3	#4	CONT	EQ	
FC2.5	2'-6"	CONT	12"	—	#5	2'-0"	14"	3	#5	CONT	EQ	
FC3.0	3'-0"	CONT	12"	—	#5	2'-6"	14"	3	#5	CONT	EQ	
FC3.5	3'-6"	CONT	12"	—	#5	3'-0"	14"	3	#5	CONT	EQ	
FC4.0	4'-0"	CONT	12"	—	#5	3'-6"	14"	4	#5	CONT	EQ	
FC4.5	4'-6"	CONT	12"	—	#5	4'-0"	14"	4	#5	CONT	EQ	
FC5.0	5'-0"	CONT	12"	—	#5	5'-0"	14"	4	#5	CONT	EQ	
FC5.5	5'-5"	CONT	12"	—	#5	5'-6"	14"	4	#5	CONT	EQ	
FS3.0	3'-0"	3'-0"	12"	3	#5	2'-6"	EQ	3	#5	2'-6"	EQ	
FS3.5	3'-6"	3'-6"	12"	3	#5	3'-0"	EQ	3	#5	3'-0"	EQ	
FS4.0	4'-0"	4'-0"	12"	4	#5	3'-6"	EQ	4	#5	3'-6"	EQ	
FS5.0	5'-0"	5'-0"	12"	5	#5	4'-6"	EQ	5	#5	4'-6"	EQ	
FS6.0	6'-0"	6'-0"	12"	6	#5	5'-6"	EQ	6	#5	5'-6"	EQ	
FS6.5	6'-6"	6'-6"	13"	6	#5	6'-0"	EQ	6	#5	6'-0"	EQ	
FS7.0	7'-0"	7'-0"	13"	7	#5	6'-6"	EQ	7	#5	6'-6"	EQ	

- CONCRETE FOOTING NOTES:
1. PLACE ALL FOOTING REINFORCING IN THE BOTTOM OF THE FOOTING WITH 3" CLEAR CONCRETE COVER (UNO).
  2. TOP REINFORCING, WHERE OCCURS, SHALL BE PLACED IN THE TOP OF THE FOOTING WITH 2" MINIMUM CONCRETE COVER.
  3. IF FOOTINGS ARE EARTH-FORMED, FOOTINGS SHALL BE 6" LONGER AND WIDER THAN SCHEDULED.
  4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
  5. SOME SCHEDULED FOOTINGS MAY NOT BE USED, SEE FOOTING AND FOUNDATION PLAN FOR FOOTING MARKS.



TYPE "A"

MARK	PIER SIZE	REINFORCING		TYPE	COMMENTS
		VERTICAL	TIES		
CP-1	12" x 24"	(6) #5	(2) #3 AT 8" O.C.	A	

- CONCRETE PIER NOTES:
1. INSTALL (3) SETS OF TIES WITHIN TOP 5" OF ALL PIERS (UNO).
  2. RUN HORIZONTAL CONCRETE WALL REINFORCING CONTINUOUS THROUGH PIER WHEN PIER IS POURED MONOLITHICALLY WITH CONCRETE WALL.
  3. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

D1 CONCRETE FOOTING SCHEDULE

D2 CONCRETE PIER SCHEDULE

CONCRETE REINFORCING BAR LAP SPICE SCHEDULE																								
BAR SIZE	f'c = 3000psi						f'c = 4000psi						f'c = 5000psi						f'c = 6000psi					
	REGULAR CLASS			TOP CLASS			REGULAR CLASS			TOP CLASS			REGULAR CLASS			TOP CLASS			REGULAR CLASS			TOP CLASS		
	A	B		A	B		A	B		A	B		A	B		A	B		A	B		A	B	
#3	13"	17"	17"	21"	12"	16"	16"	21"	12"	16"	16"	21"	12"	16"	16"	21"	12"	16"	16"	21"	12"	16"	16"	21"
#4	17"	22"	22"	28"	15"	19"	19"	25"	13"	17"	22"	12"	16"	16"	21"	12"	16"	16"	21"	12"	16"	16"	21"	
#5	21"	27"	27"	35"	18"	24"	24"	31"	16"	21"	21"	27"	15"	19"	19"	25"	19"	19"	25"	19"	19"	25"	19"	25"
#6	27"	36"	36"	46"	24"	31"	31"	40"	21"	28"	28"	36"	20"	25"	25"	33"	20"	25"	25"	33"	20"	25"	25"	33"
#7	37"	48"	48"	63"	32"	42"	42"	54"	29"	38"	38"	49"	27"	34"	34"	44"	27"	34"	34"	44"	27"	34"	34"	44"
#8	49"	64"	64"	82"	42"	55"	55"	71"	38"	49"	49"	64"	35"	45"	45"	58"	35"	45"	45"	58"	35"	45"	45"	58"
#9	62"	80"	80"	104"	54"	70"	70"	90"	48"	62"	62"	81"	44"	57"	57"	74"	44"	57"	57"	74"	44"	57"	57"	74"
#10	78"	102"	102"	132"	68"	88"	88"	115"	61"	79"	79"	102"	56"	72"	72"	94"	56"	72"	72"	94"	56"	72"	72"	94"
#11	96"	125"	125"	162"	83"	108"	108"	141"	76"	97"	97"	126"	68"	88"	88"	115"	68"	88"	88"	115"	68"	88"	88"	115"

- CONCRETE REINFORCING BAR LAP SPICE NOTES:
1. THIS SCHEDULE SHALL BE USED FOR ALL BAR SPICES IN CONCRETE WALLS, UNLESS NOTED OTHERWISE.
  2. CLASS 'A' SPICES MAY BE USED ONLY IN CASES WHERE 50% OR LESS OF THE BARS ARE SPICED WITHIN THE LAP SPICE LENGTH.
  3. CLASS 'B' SPICES SHALL BE USED FOR ALL SPICES UNLESS THE REQUIREMENTS OF NOTE No. 2 ABOVE ARE MET.
  4. TIES AND STIRRUPS SHALL NOT BE SPICED.
  5. SPICES FOR BUNDLED BARS:
    - a. FOR BUNDLED BARS OF THREE OR LESS, LAP SPICE LENGTHS SHALL BE MULTIPLIED BY 1.2.
    - b. FOR BUNDLED BARS OF FOUR OR MORE, LAP SPICE LENGTHS SHALL BE MULTIPLIED BY 1.33.
    - c. INDIVIDUAL BAR SPICES WITHIN A BUNDLE SHALL NOT OVERLAP.
  6. ENTIRE BUNDLES SHALL NOT BE LAP SPICED.
  7. FOR ALL LIGHTWEIGHT CONCRETE, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3.
  8. FOR ALL EPOXY COATED BARS, LAP LENGTHS SHALL BE MULTIPLIED BY 1.3 FOR TOP BARS AND 1.5 FOR REGULAR BARS.
  9. TOP BARS ARE CLASSIFIED AS HORIZONTAL BARS WHERE 12", OR MORE, OF FRESH CONCRETE IS CAST BELOW THE REINFORCING BAR.
  10. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

B1 CONCRETE REINFORCING BAR LAP SPICE SCHEDULE

B2 MASONRY WALL SCHEDULE

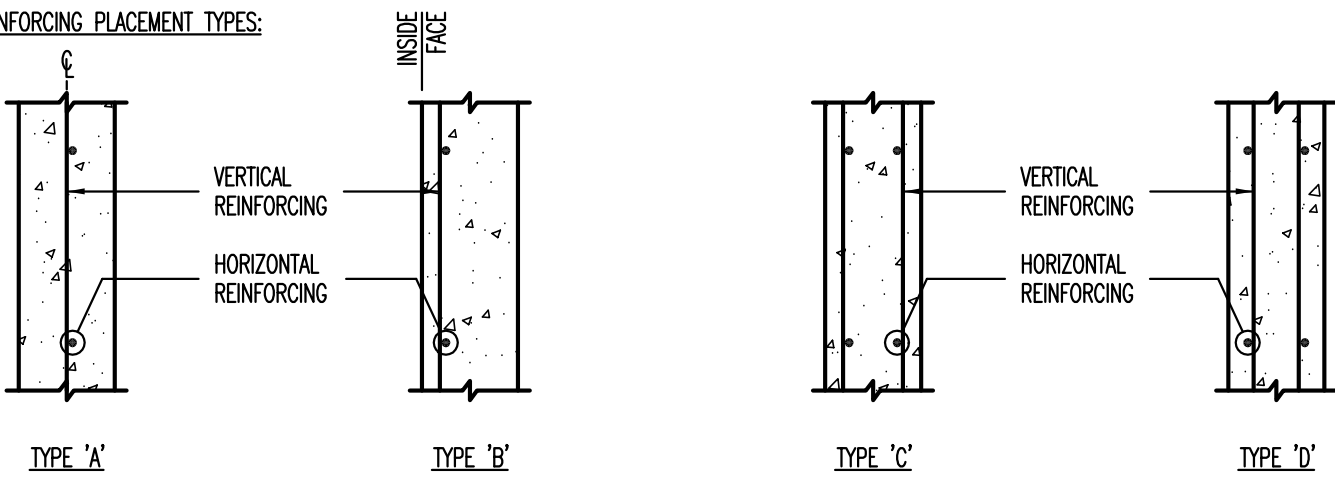
CONCRETE WALL SCHEDULE						
MARK	THICKNESS	REINFORCING			WALL TYPE	COMMENTS
		VERTICAL	HORIZONTAL	TOP AND BOTTOM		
CW-10	10"	#4 AT 16" O.C.	#5 AT 16" O.C.	(1) #5	A	
CW-12	12"	#4 AT 18" O.C.E.F.	#4 AT 16" O.C.E.F.	(2) #5	C	

- CONCRETE FOUNDATION WALL NOTES:
1. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
  2. CONCRETE FOUNDATION WALLS NOT DESIGNATED ON PLANS SHALL BE REINFORCED AS FOLLOWS:

ABBREVIATIONS:  
E.F. EACH FACE  
I.F. INSIDE FACE  
O.F. OUTSIDE FACE

THICKNESS	VERTICAL REINFORCING	HORIZONTAL REINFORCING
6"	#4 BARS AT 18" O.C.	#4 BARS AT 16" O.C.
8"	#4 BARS AT 18" O.C.	#4 BARS AT 12" O.C.
10"	#4 BARS AT 18" O.C.	#5 BARS AT 15" O.C.
12"	#4 BARS AT 18" O.C. E.F.	#4 BARS AT 16" O.C. E.F.

WALL REINFORCING PLACEMENT TYPES:



MASONRY REINFORCING LAP SCHEDULE		
BAR SIZE	(1) BAR PER CELL	(2) BARS PER CELL
#3	18"	18"
#4	24"	24"
#5	42"	42"
#6	49"	90"
#7	68"	131"
#8	97"	198"

A1 CONCRETE WALL SCHEDULE

A2 MASONRY REINFORCING LAP SCHEDULE (2000psi)

CLIENT



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PROFESSIONAL SEAL

ISSUE

2-09	CONSTRUCTION DOCUMENTS
1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
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DFCM PROJECT NO: 08085

DFCM CONTRACT NO:

ARCHIPLEX PROJECT NO:

DRAWN BY:

CHECKED BY:

SCALE:

DATE: FEBRUARY, 2009

SHEET TITLE

SCHEDULES

SB601



D

C

A

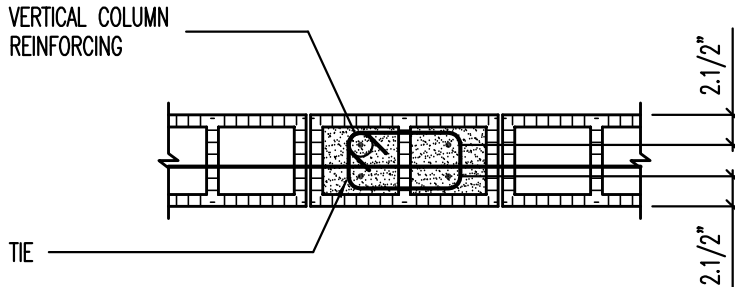
B

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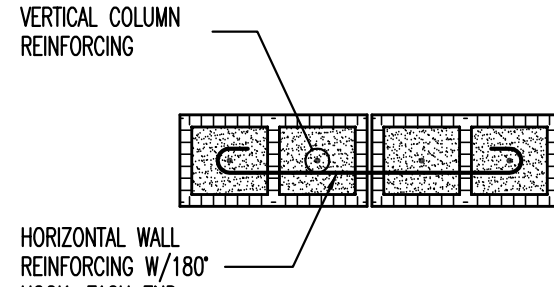
MASONRY COLUMN SCHEDULE				
MARK	SIZE	REINFORCING		REINFORCING SCHEMATIC
		VERTICAL	TIES	
MC-1	10" x 16"	(4) #5	#3 AT 8" O.C.	
MC-2	10" x 24"	(6) #5	#3 AT 8" O.C.	
MC-3	10" x 48"	(6) #5	NONE	
MC-4	10" x 32"	(8) #5	#3 AT 8" O.C.	
MC-5	10" x 40"	(10) #6	#3 AT 8" O.C.	
MC-6	10" x 64"	(16) #6	#3 AT 8" O.C.	
MC-7	12" x 32"	(8) #5	#3 AT 8" O.C.	
MC-8	12" x 24"	(3) #5	NONE	
MC-9	12" x 48"	(12) #5	#3 AT 8" O.C.	
MC-10	12" x 24"	(6) #5	#3 AT 8" O.C.	
MC-11	10" x 40"	(10) #5	#3 AT 8" O.C.	
MC-12	12" x 24"	(4) #5	#3 AT 8" O.C.	

MASONRY COLUMN NOTES:

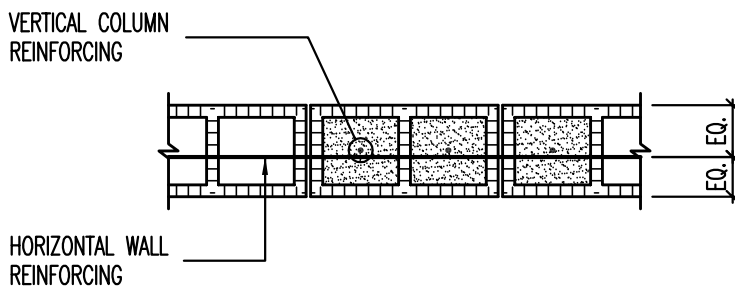
1. THE CENTERLINE OF THE VERTICAL BARS SHALL BE LOCATED 2.1/2" FROM THE FACE OF THE MASONRY. HORIZONTAL WALL REINFORCING SHALL BE LOCATED TO THE INSIDE OF THE VERTICAL BARS.
2. VERTICAL REINFORCING AND TIES SHALL EXTEND FULL HEIGHT OF WALL (UNQ).
3. VERTICAL MASONRY COLUMN REINFORCING SHALL EXTEND INTO THE FOOTING AND TERMINATE WITH A STANDARD 90° HOOK. FOR CONCRETE FOUNDATION WALLS TALLER THAN 5'-0", VERTICAL COLUMN REINFORCING SHALL DOWEL 4'-0" MINIMUM INTO THE FOUNDATION WALL.
4. IN CONCRETE FOUNDATION WALLS, VERTICAL MASONRY COLUMN REINFORCING SHALL BE TIED WITH #3 TIES AT THE SAME SPACING AND CONFIGURATION AS THE MASONRY COLUMN ABOVE.
5. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



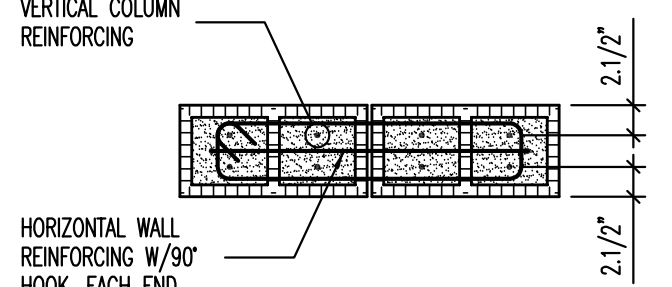
TYPICAL COLUMN CONFIGURATION SCHEMATIC



TYPICAL ISOLATED COLUMN CONFIGURATION SCHEMATIC



TYPICAL COLUMN CONFIGURATION SCHEMATIC



TYPICAL ISOLATED COLUMN CONFIGURATION SCHEMATIC

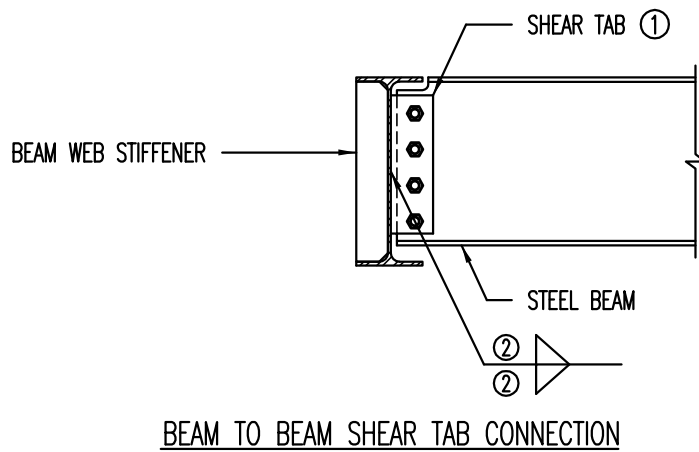
B1 MASONRY COLUMN SCHEDULE

SCHED\_MC\_COL-01

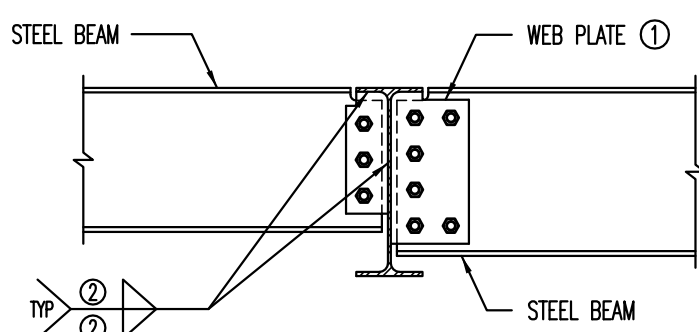
NO SCALE

A-325N BOLT SCHEDULE		
MAXIMUM BEAM SIZE IN EACH BEAM DEPTH GROUP	A-325N BOLTS	
	No. PER BEAM	SIZE
W8	2	3/4"
W10	2	3/4"
W12	3	3/4"
W14	3	3/4"
W16	4	3/4"
W18	5	3/4"
W21	6	3/4"
W24	7	3/4"
W27	8	3/4"
W30	9	3/4"

① BEAM WEB CONNECTION PLATES. THICKNESS EQUALS THE BEAM WEB THICKNESS PLUS 1/8" (3/8" MIN.)  
② FILLET WELDS SHALL BE AS FOLLOWS:  
ONE SIDE: PL THICKNESS MINUS 1/16" (1/4" MIN).  
TWO SIDES: 1/2 PL THICKNESS PLUS 1/16" (1/4" MIN) EACH SIDE.  
③ THICKNESS EQUALS BEAM FLANGE THICKNESS OF BEAM FRAMING INTO COLUMN WEB (3/8" MIN).  
④ BOLT EDGE DISTANCE SHALL BE 1.1/2" MIN AT ALL EDGES. BOLT SPACING SHALL BE 3" MIN.  
⑤ WHEN MORE THAN ONE ROW OF BOLTS IS NEEDED, THE FIRST ROW SHALL BE A COMPLETE ROW WITH THE REMAINDER OF THE BOLTS PLACED IN THE SECOND ROW.



BEAM TO BEAM SHEAR TAB CONNECTION



BEAM TO BEAM WEB PLATE CONNECTION

A1 TYPICAL BOLTED WEB PLATE CONNECTIONS WITH BOLT SCHEDULE

SCHED\_MC\_WEB-01

NO SCALE

A2

MASONRY LINTEL SCHEDULE

SCHED\_ML\_LIN-01

NO SCALE

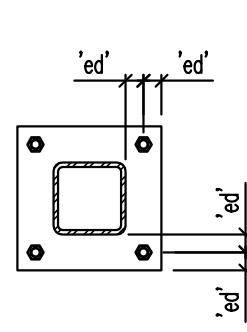
STEEL COLUMN SCHEDULE				
MARK	SIZE	STEEL BASE PLATE	STEEL CAP PLATE	COMMENTS
SC-8	HSS8x8x1/4	7/8" (SBP-2)	1/4" CAP PLATE	

STEEL COLUMN NOTES:

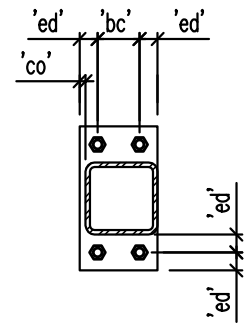
1. UNLESS NOTED OTHERWISE, ALL COLUMNS SHALL BE INSTALLED WITH (4) 3/4" ANCHOR RODS WITH 3" MINIMUM HOOKS. PROJECT ANCHOR RODS 3" MINIMUM ABOVE THE TOP OF THE BASE PLATE. EMBEDMENT SHALL BE 9" MINIMUM. ALL RODS SHALL BE INSTALLED WITH HARDENED WASHERS BENEATH THE NUT. ANY BOLT HOLES LARGER THAN THE ROD DIAMETER PLUS 5/16" SHALL HAVE 5/16" PLATE WASHERS INSTALLED BENEATH THE HARDENED WASHERS.
2. ALL CAP PLATE BOLTS SHALL BE 3/4" A325N BOLTS, TYPICAL UNLESS NOTED OTHERWISE.
3. ANCHOR RODS SHALL NOT BE WELDED (INCLUDING TACK WELDS).
4. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
5. SEE DETAIL C1/SF512 FOR COLUMNS EMBEDDED IN MASONRY WALLS.

STEEL BASE PLATE TYPES:

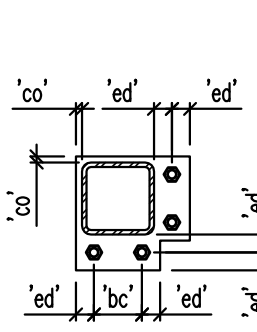
BASE PLATE LEGEND  
co = 1/2" MINIMUM  
ed = 1.1/2" MINIMUM  
bc = 3" MINIMUM



BASE PLATE SBP-1



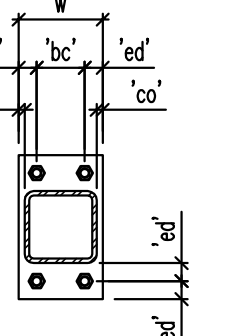
BASE PLATE SBP-2



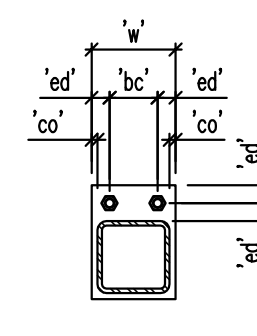
BASE PLATE SBP-3

STEEL CAP PLATE TYPES:

CAP PLATE LEGEND  
co = 1/2" MINIMUM  
ed = 1.1/2" MINIMUM  
bc = BEAM OR GIRDER GAGE + 3"  
w = BEAM OR GIRDER GAGE + 3"  
OR  
BEAM OR GIRDER WIDTH + 1"  
OR  
COLUMN WIDTH + 1"  
WHICHEVER IS GREATER



CAP PLATE SCP-1



CAP PLATE SCP-2

C2 STEEL COLUMN SCHEDULE

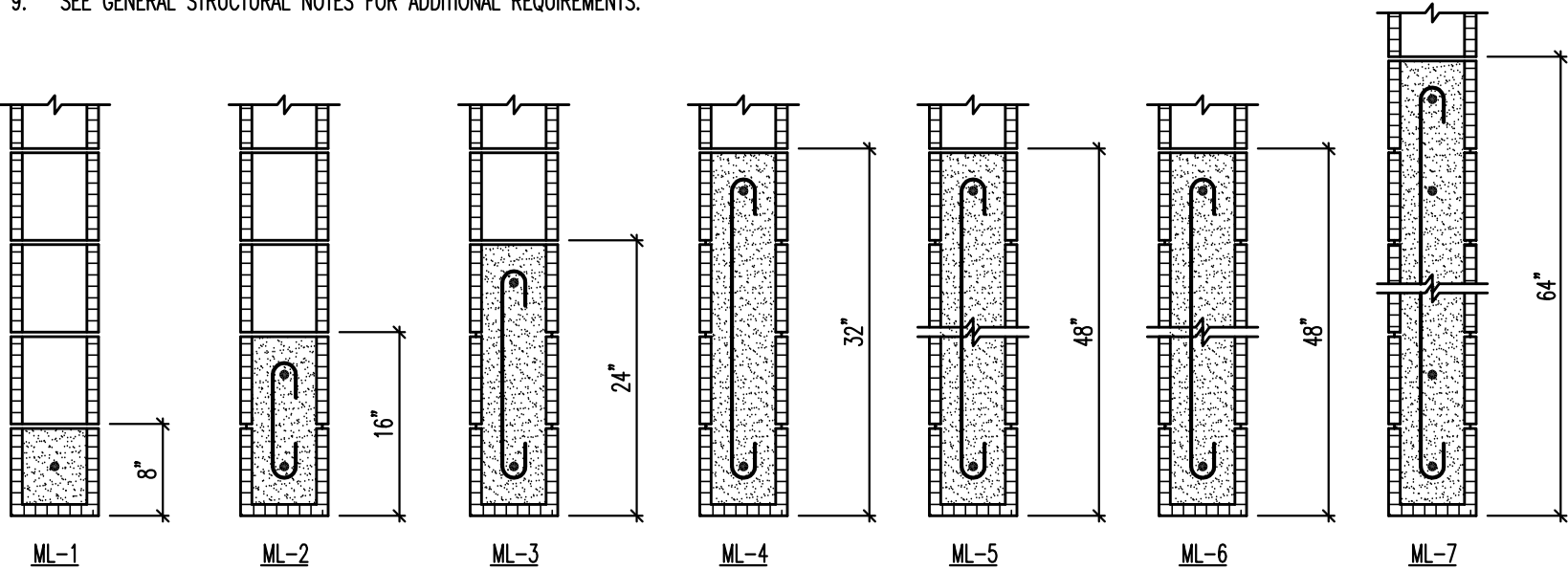
SCHED\_SC\_COL-01

NO SCALE

MASONRY LINTEL SCHEDULE					
MARK	DEPTH	MAXIMUM SPAN	REINFORCING		COMMENTS
			HORIZONTAL	STIRRUPS	
ML-1	8"	3'-4"	(1) #7 x CONT	NONE	
ML-2	16"	6'-0"	(1) #7 x CONT TOP AND BOTTOM	#4 AT 8" O.C.	
ML-3	24"	8'-0"	(1) #7 x CONT TOP AND BOTTOM	#4 AT 8" O.C.	
ML-4	32"	10'-0"	(1) #7 x CONT TOP AND BOTTOM	#4 AT 8" O.C.	
ML-5	48"	-	(1) #7 CONT TOP AND BOTTOM	#4 AT 8" O.C.	
ML-6	48"	-	(1) #7 CONT TOP AND BOTTOM	(2) #4 AT 8" O.C.	
ML-7	64"	-	(2) #7 CONT TOP AND BOTTOM	(2) #4 AT 8" O.C.	

MASONRY LINTEL NOTES:

1. LINTEL WIDTH AND MATERIAL TYPE SHALL BE THE SAME AS THE WALL IN WHICH THE LINTEL IS CONSTRUCTED.
2. GROUT MASONRY LINTELS MONOLITHICALLY WITH THE SUPPORT WALL OR COLUMN AT EACH END.
3. MASONRY LINTELS ML-1 THROUGH ML-4 SHALL BE USED OVER OPENINGS IN MASONRY WALLS WHEN A SPECIFIC MASONRY LINTEL IS NOT OTHERWISE SPECIFIED. WHEN A LINTEL IS SPECIFIED ON THE PLANS, THE MAXIMUM SPAN AS NOTED IN THIS SCHEDULE SHALL NOT APPLY. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SPECIFIED ON THE PLANS WHICH HAVE A SPAN GREATER THAN 10'-0".
4. MASONRY LINTELS ML-1 THROUGH ML-4 SHALL NOT BE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS UNLESS NOTED OTHERWISE ON THE PLANS. JOISTS SHALL NOT BEAR ON ANY LINTEL LESS THAN 16" DEEP. CONSULT THE STRUCTURAL ENGINEER FOR LINTELS NOT SHOWN ON THE PLANS WHICH ARE LOCATED DIRECTLY BELOW FLOOR OR ROOF BEAMS OR GIRDERS.
5. EXTEND ALL HORIZONTAL REINFORCING 48 BAR DIAMETERS MINIMUM BEYOND THE EDGE OF ALL OPENINGS. IF HORIZONTAL REINFORCING CANNOT EXTEND 48 BAR DIAMETERS BEYOND EDGE OF OPENING, PROVIDE 90° STANDARD HOOK.
6. SPLICE TOP BARS AT MIDSPAN OF LINTEL ONLY AND BOTTOM BARS OVER SUPPORTS ONLY.
7. HORIZONTAL WALL REINFORCING SHALL CONTINUE THROUGH MASONRY LINTELS. WHERE BOTH HORIZONTAL WALL REINFORCING AND LINTEL REINFORCING OCCUR IN THE SAME COURSE, USE THE LARGER REINFORCING.
8. DOWEL VERTICAL REINFORCING OF WALL ABOVE LINTEL INTO THE FULL DEPTH OF LINTEL OR 48 BAR DIAMETERS, WHICHEVER IS LESS.
9. SEE GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.



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PROFESSIONAL SEAL

ISSUE

	2-09	CONSTRUCTION DOCUMENTS
	1-20-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
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DFCM PROJECT NO: 08085

DFCM CONTRACT NO:

ARCHIPLEX PROJECT NO:

DRAWN BY:

CHECKED BY:

SCALE:

DATE: FEBRUARY, 2009

SHEET TITLE

SCHEDULES

SF601

RETURN OR EXHAUST DUCT DOWN	
RETURN OR EXHAUST DUCT UP	
SUPPLY AIR DUCT DOWN	
SUPPLY AIR DUCT UP	
SPIN-IN FITTING W/MVD	
FLEXIBLE DUCT	
CEILING SLOT DIFFUSER	
CEILING DIFFUSER	
CEILING EXHAUST GRILLE	
CEILING GRILLE	
ACCESS PANEL	
MANUAL VOLUME DAMPER	
MOTORIZED DAMPER	
FIRE DAMPER	
COMBINATION FIRE/SMOKE DAMPER	
THERMOSTAT OR TEMP SENSOR	
POINT OF CONNECTION TO EXISTING	
DETAIL TAG	
KEYED NOTE	
SECTION CUT LINE	
CONTROL TRANSFORMER	

- (1) COORDINATE ALL AIR DEVICE LOCATIONS WITH REFLECTED CEILING PLANS AND ELECTRICAL DRAWINGS.
- (2) ALL DUCTWORK SHALL RECEIVE 1" - 1.5 LBS/CU.FT. DUCT LINER, ATTACH TO DUCT WITH MECHANICAL FASTENERS AND TRIM AND SEAL JOINTS. LOW PRESSURE ROUND FLEXIBLE DUCT TO BE 1-1/2" THICK INSULATED AND A MAXIMUM OF 6 FT. LONG. ALL INSULATION TO MEET NFPA 90 PER UL 181-CLASS 1. NO DUCTBOARD ALLOWED.
- (3) ALL DUCTWORK IS TO BE LINED OR WRAPPED IF ROUND. NO DUCTBOARD IS ALLOWED.
- (4) DUCTWORK AND PIPE ROUTING AS SHOWN ON DRAWINGS IS DIAGRAMMATIC AND IS NOT TO BE SCALED. WHERE ALTERATIONS OR CORRECTIONS ARE REQUIRED FOR COORDINATION OF WORK, THIS CONTRACTOR SHALL MAKE CHANGES WITHOUT ADDITIONAL COSTS.
- (5) THIS CONTRACTOR SHALL CLOSELY COORDINATE NEW MECHANICAL WITH NEW ELECTRICAL, ARCHITECTURAL AND BUILDING STRUCTURE.
- (6) THIS CONTRACTOR SHALL FIELD VERIFY ALL MECHANICAL ITEMS PRIOR TO STARTING NEW WORK. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH SITE CONDITIONS.
- (7) THIS CONTRACTOR SHALL USE SMACNA DUCT CONSTRUCTION STANDARDS FOR SHEET METAL DUCTS. ALL DUCTWORK (UNLESS OTHERWISE NOTED ON FLOOR PLANS) SHALL BE CONSTRUCTED OF 1" W.C. SEAL CLASS "B".
- (8) ALL MECHANICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT ADOPTED EDITION OF THE BUILDING CODES, FIRE CODES, MECHANICAL CODES AND PLUMBING CODES.
- (9) THIS CONTRACTOR SHALL PROVIDE SUBMITTALS ON ITEMS LISTED IN MECHANICAL EQUIPMENT LIST TO THE ENGINEER FOR REVIEW PRIOR TO THE ORDER, PURCHASE OR INSTALLATION.
- (10) ALL DIFFUSERS MUST BE BALANCED TO THE VALUES INDICATED ON THE FLOOR PLANS. PROVIDE BALANCE REPORT TO ENGINEER PRIOR TO PROJECT CLOSEOUT.
- (11) DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS.
- (12) EACH TRADE IS RESPONSIBLE THEIR OWN FIRE CAULKING.
- (13) HOUSEKEEPING PADS FOR ALL EQUIPMENT IS PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
- (14) ALL RETURN AIR GRILLES SHALL HAVE SOUND BOOTS W/ LINED INSULATION. INSULATION IS TO BE PAINTED FLAT BLACK.
- (15) DIVISION IS TO SUBMIT TO ENGINEER ALL LOW-BUILDINGS MECHANICAL AND PLUMBING SYSTEMS PRIOR TO JOB COMPLETION AND FINAL PAYMENT.
- (16) WATER DISINFECTANT AND AIR BALANCE REPORT ARE TO BE TURNED TO ENGINEER FOR REVIEW PRIOR TO SUBSTANTIAL COMPLETION WALK-THROUGH.
- (17) PROJECT ELEVATION IS 7676' ABOVE SEA LEVEL.
- (18) DO NOT SUPPORT MECHANICAL EQUIPMENT AND/OR PLUMBING FROM ROOF DECK. SUPPORT FROM BUILDING STRUCTURE OR FLOOR IS ACCEPTABLE.

SYMBOL	LOCATION	INPUT BTU	WEIGHT	CONFIG	MOTOR				FLUE SIZE	MAKE AND MODEL NUMBER	COMMENTS
					AMPS	VOLTS	Ø	CYCLES			
B-1	AS SHOWN	120000	35	SEE PLANS	1.0 RUN	120	1	60	4"	ROBERTS GORDON CO-RAY-VAC FB-10	① ② ③ ④ ⑤ ⑥

- ① ROBERS GORDON #EP-200 VACUUM PUMP, 3/4HP, 120 VOLT ② PROVIDE FRESH AIR INTAKE ③ 7-DAY PROGRAMMABLE THERMOSTAT  
④ HEAT TREATED ALUMIZED STEEL TUBE AND POLISHED ALUMINUM REFLECTOR ⑤ PROPANE GAS  
⑥ PROVIDE SUFFICIENT LENGTH POWER CORD TO MAKE CONNECTION FROM BURNER TO ELECTRICAL OUTLET.

PLAN CODE	TYPE & DUTY	NECK SIZE	CEILING TYPE	N.C. LEVEL MAX	SP	MAX. CFM	DAMPER	COLOR	MANUFACTURER & MODEL NO.	REMARKS
S-1	4-WAY SUPPLY	6"ø	SEE PLANS	20	0.05	176	IN DUCT	WHITE	PRICE #SCDA	① ③ ④
S-2	4-WAY SUPPLY	8"ø	SEE PLANS	20	0.05	280	IN DUCT	WHITE	PRICE #SCDA	② ③ ④
S-3	4-WAY SUPPLY	10"ø	SEE PLANS	21	0.05	436	IN DUCT	WHITE	PRICE #SCDA	② ③ ④
R-1	RETURN	12"x12"	SEE PLANS	15	0.06	680	OBD	WHITE	PRICE #80D	④
T-1	TRANSFER GRILLE	12" X 12"	SEE PLANS	15	0.06	N.A.	N.A.	WHITE	PRICE #80D	④

- ① 12" X 12" FACE MODULE    ② 24" X 24" FACE MODULE    ③ 3 CONCENTRIC CONES    ④ SET FOR HORIZONTAL DISCHARGE  
\* NOT ALL DEVICES ARE USED

SYMBOL	INPUT BTU	OUTPUT BTU (2)	CFM	EXT. S.P.	FAN SPEED	FILTER		MOTOR				MANUFACTURER AND MODEL NO.	COMMENTS	
						NO.	SIZE	HP	φ	CYCLES	VOLT			DRIVE
F-1	40,000	31,464	600	0.5	1075 RPM	1	17"x25"x1"	1/5	60	1	115	DIRECT	FRANE #TUX1B3040A9241	(1) (3) (4) (5) (6) (7)

- ① AFUE - 93 ② AT ELEVATION ③ R410A ④ PROVIDE W/TXCB025003HC EVAPORATOR ⑤ PROPANE GAS KIT ⑥ CONCENTRIC VENT KIT  
⑦ CONDENSER, EVAPORATOR AND FURNACE BY SAME MANUFACTURER

SYMBOL	NO. REQ'D	LOCATION	CFM	TOTAL SP	LBS	SONES	ROOF OR WALL OPENING	MOTOR				COMMENTS	
								HP	Φ	CYCLES	VOLTS		RPM
EF-1	AS SHOWN	RESTROOM	108	0.25	15	2.5	6" Φ	50 WATTS	1	60	120	1200	COOK #GC-140 ③ ④ ⑤
EF-2	AS SHOWN	VEHICLE SVC BAY	5920	0.25	345	22	43" SQ.	1.5	1	60	208	646	COOK #36XLPH ① ② ⑥ ⑦

- ① PROVIDE INSULATED HOUSING AROUND MOTOR    ② CONTROL WITH CARBON MONOXIDE DETECTOR THROUGH ON/AUTO SWITCH    ③ CEILING GRILLE  
④ COOK WCA-2 WALL CAP AND DAMPER, WHITE IN COLOR    ⑤ CONTROL WITH LIGHT SWITCH    ⑥ MOTORIZED DAMPER. INTERLOCK DAMPER WITH FAN MOTOR  
⑦ SAFETY INLET SCREEN

PLAN CODE	SYSTEM SERVED	MANUFACTURER & MODEL NO.	CR1	VELOCITY FPM	FREE AREA (SF)	DIMENSIONS (W x H) (IN)	COLOR	COMMENTS
L-1	INLET	RUSKIN # ELF81530	5900	541	10.30	56 x 56	WHITE	
L-2	INLET	RUSKIN # ELF81530	5900	871	6.77	48 x 48	WHITE	

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PROFESSIONAL SEAL



## ISSUE


	2-09	CONSTRUCTION DOCUMENTS
	1-19-09	90% REVIEW SUBMITTAL

MARK	DATE	DESCRIPTION
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DFCM PROJECT NO: 08300900

DFCM CONTRACT NO: 97236

ARCHIPLEX PROJECT NO: 0837.01

DRAWN BY: JB

CHECKED BY: ADS

SCALE: \_\_\_\_\_

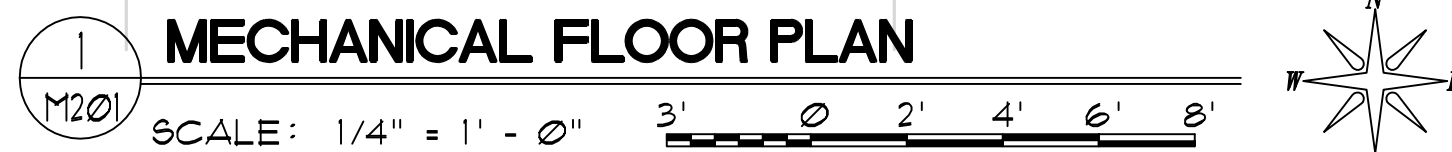
DATE: FEBRUARY, 2009

SHEET TITLE

## MECHANICAL LEGEND AND SCHEDULES

M001





- (1) MOUNT THERMOSTAT 5'-0" AFF.
- (2) PROVIDE WALL CAP.
- (3) EXTEND EXHAUST DUCT THROUGH WALL.
- (4) NOT USED.
- (5) NOT USED.
- (6) INSTALL LOUVERS PER DETAIL 1/M602. SEE ARCH DRAWINGS FOR LOCATION.
- (7) RADIANT HEAT SYSTEM CONTROL PANELS.
- (8) CARBON MONOXIDE DETECTOR. INTERLOCK THROUGH AUTO SWITCH WITH EXHAUST FAN EF-2. LABEL SWITCH WITH LAMINATED PLASTIC LABEL.
- (9) REF. ARCHITECT'S DRAWING FOR LOCATION.
- (10) MOUNT RADIANT HEATERS PARALLEL WITH ROLL-UP DOORS.
- (11) 4" COMBUSTION AIR INTAKE THROUGH ROOF. SEE DETAIL 4/M602.
- (12) MOUNT LOUVER 24" AFF.
- (13) MECHANICAL CONTRACTOR SHALL COORDINATE ANY/ALL CHANGES WITH ELECTRICAL CONTRACTOR.
- (14) MOUNT FURNACE ON 18" HIGH PLATFORM.
- (15) PROPANE GAS REGULATOR CAPABLE OF PROVIDING 40 MBH/HR. OF 11oz. PROPANE. REGULATOR TO REDUCE PRESSURE FROM 10psi. TO 11oz. ESTIMATED LENGTH FROM REGULATOR TO FURTHEST BURNER IS 125'.
- (16) DROP 1/2" GAS LINE DOWN TO FURNACE.
- (17) DROP 1/2" GAS LINE DOWN TO WATER HEATER.
- (18) DROP 3/4" GAS LINE DOWN TO BURNER.
- (19) INTERLOCK DAMPER MOTOR WITH EF-1.
- (20) 4" TYPE B VENT THROUGH ROOF. INSTALL PER MANUFACTURERS INSTRUCTIONS.
- (21) TO PROPANE TANK. SEE CIVIL UTILITY PLAN FOR EXACT LOCATION OF PROPANE TANK.
- (22) PROPANE GAS PRESSURE FROM PROPANE TANK TO BUILDING PRESSURE REGULATOR IS 10psi PROVIDING 40 MBH/HR.

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SPENDLOVE  
16691

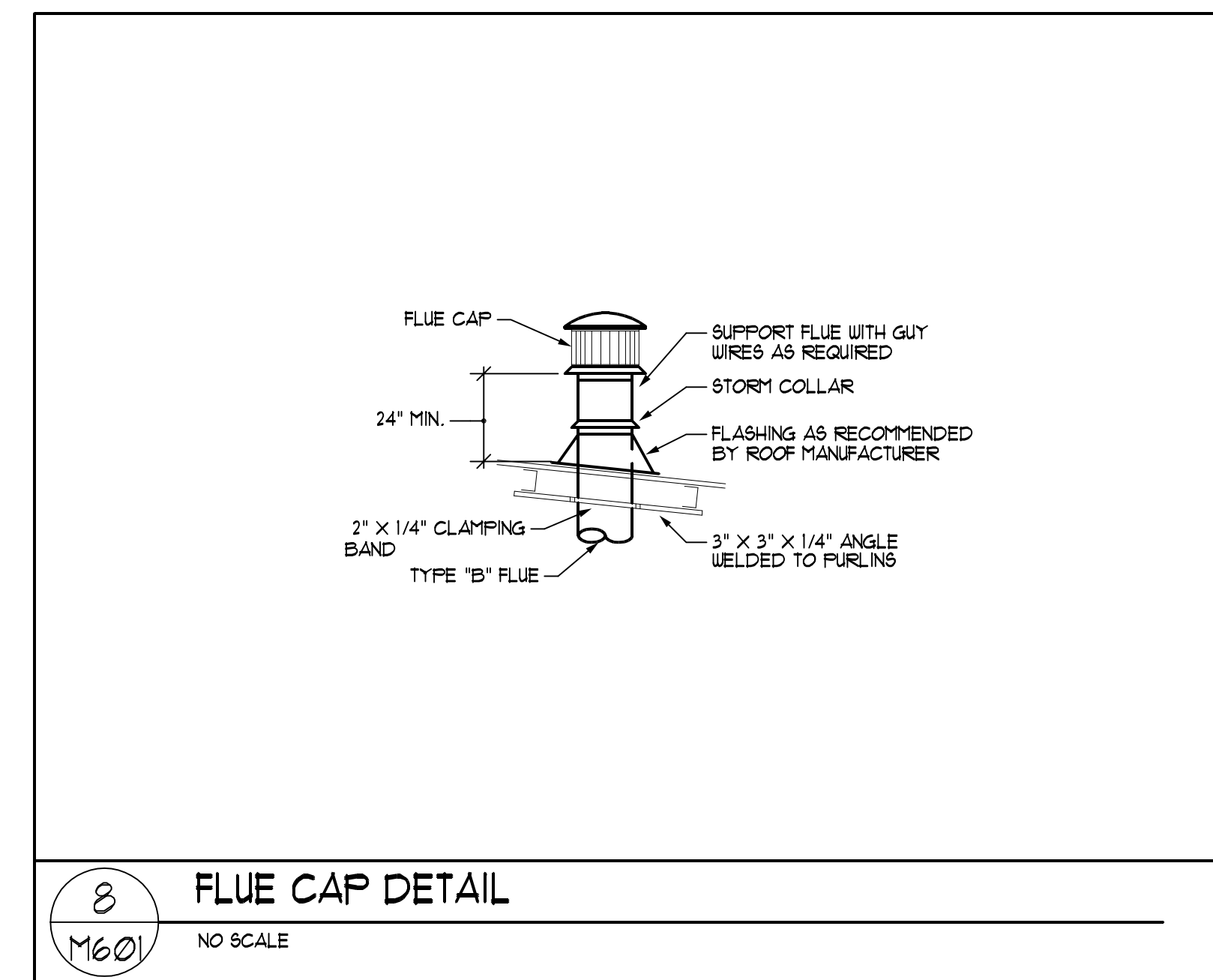
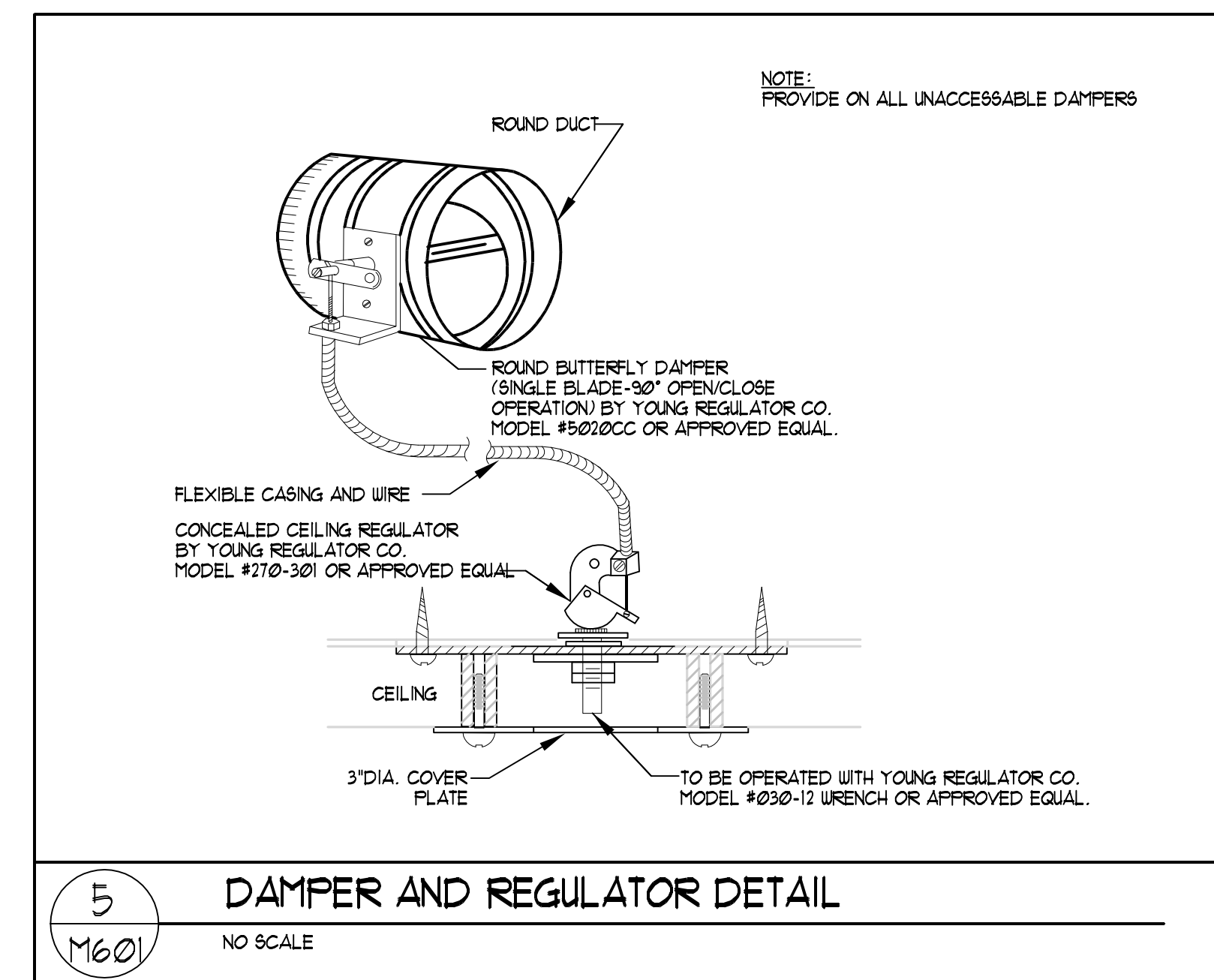
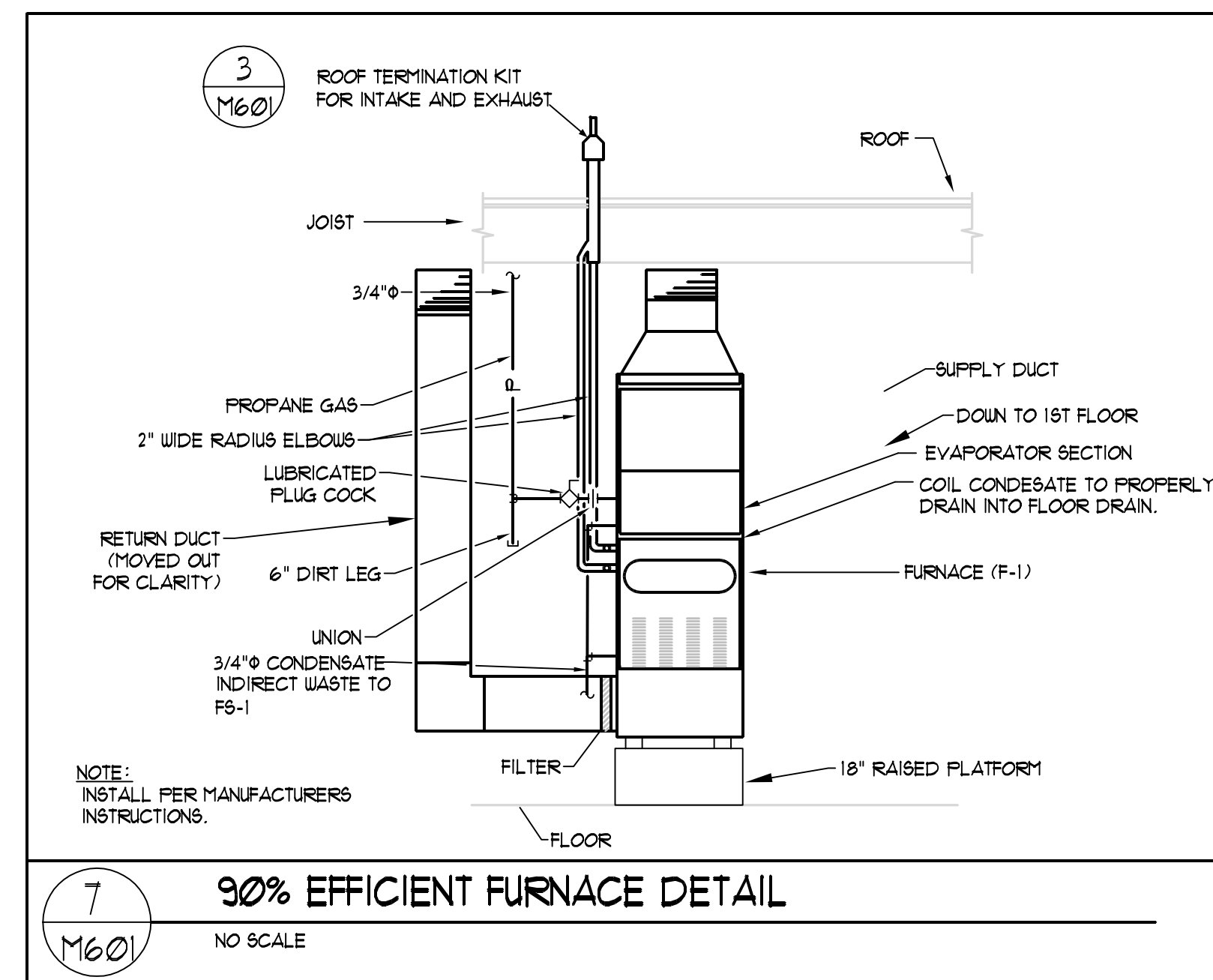
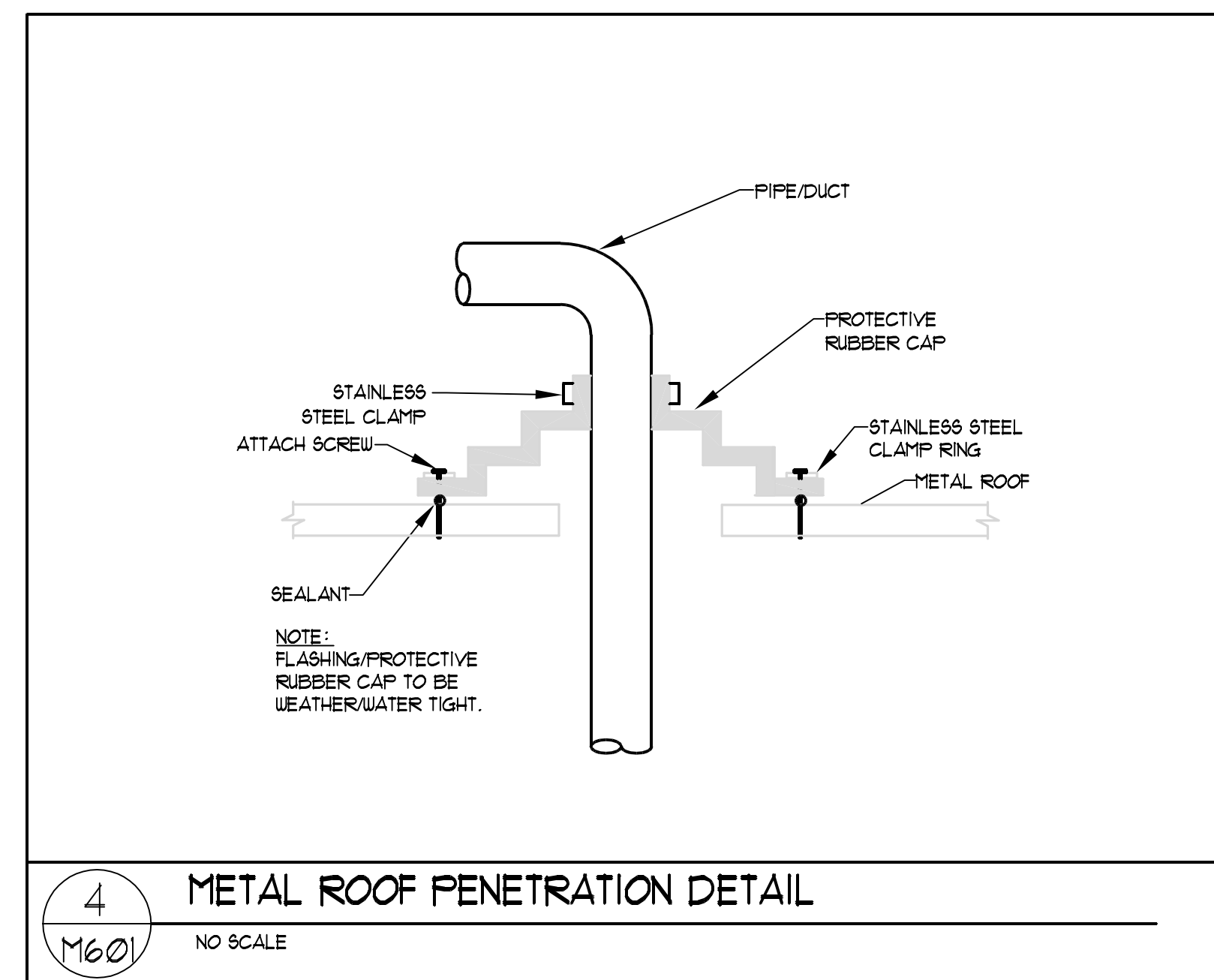
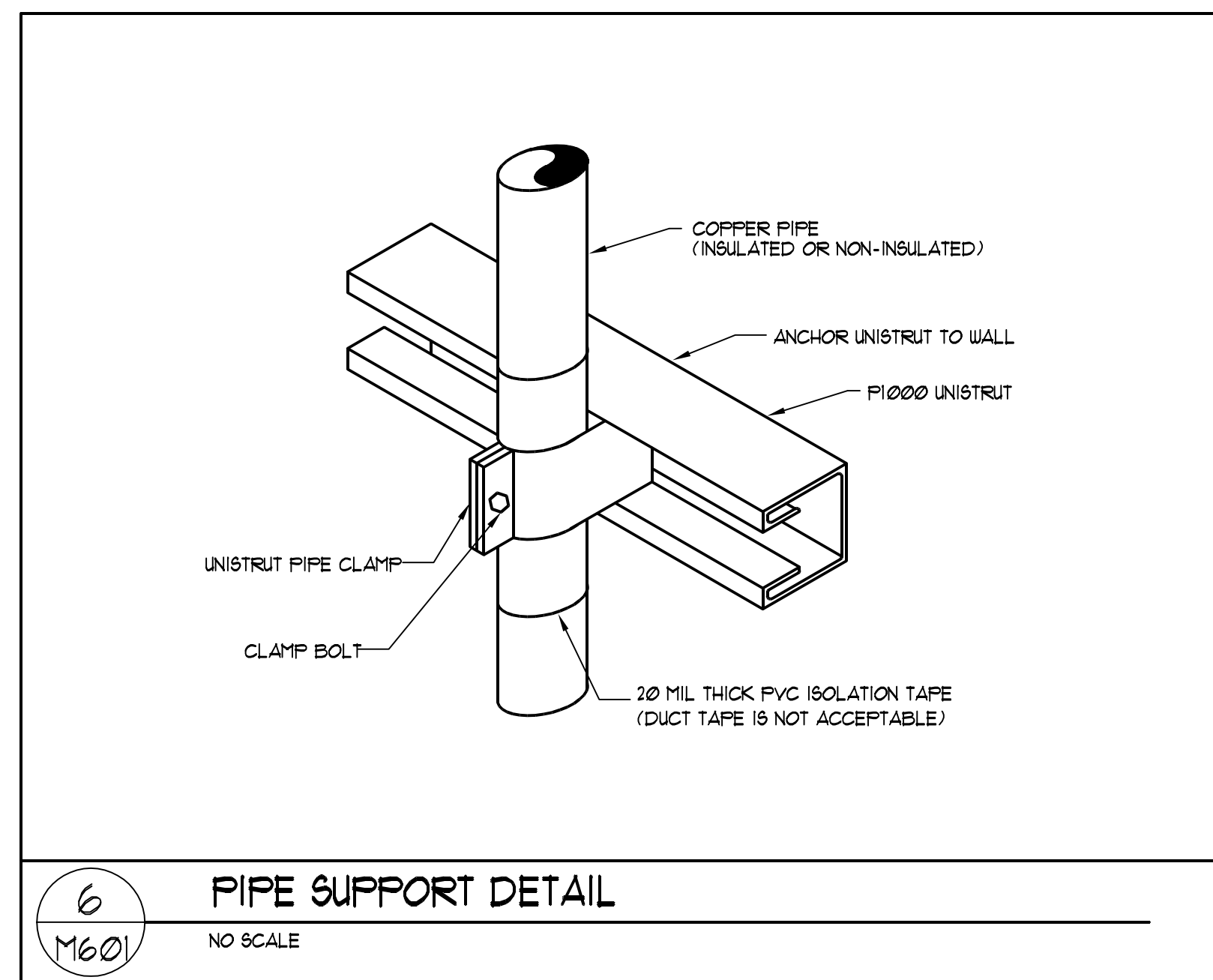
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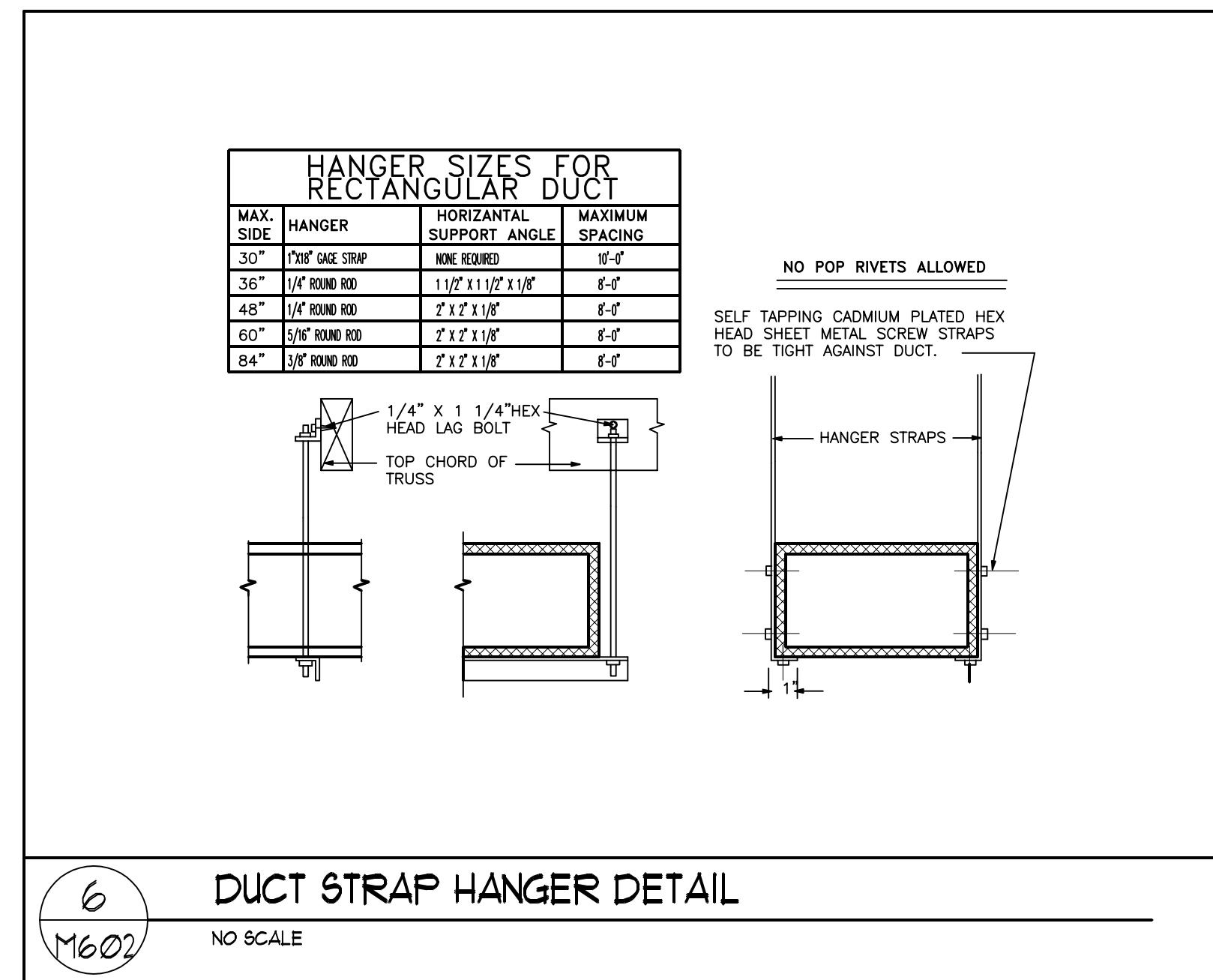
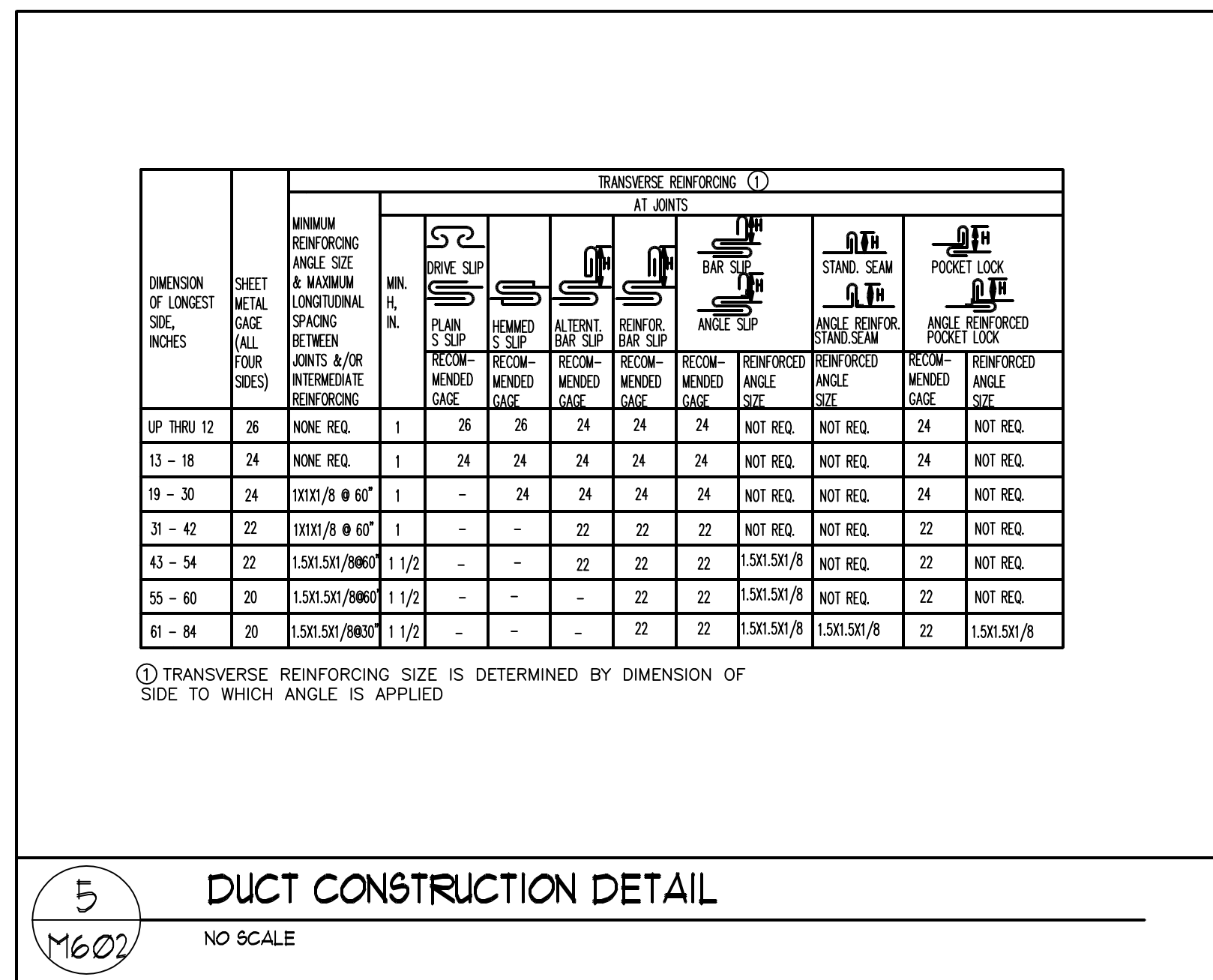
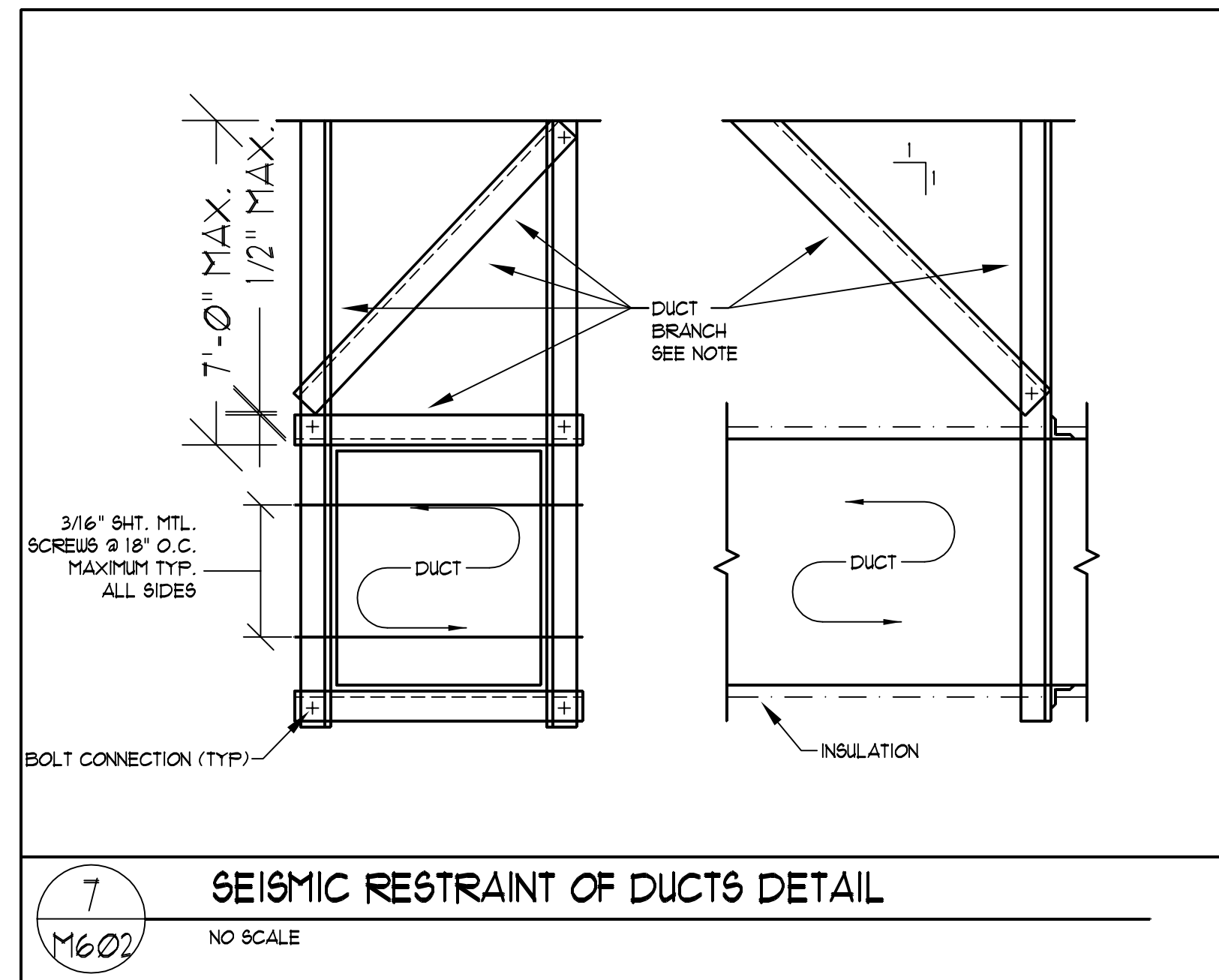
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SCALE:	
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MECHANICAL  
FLOOR  
PLAN

M201





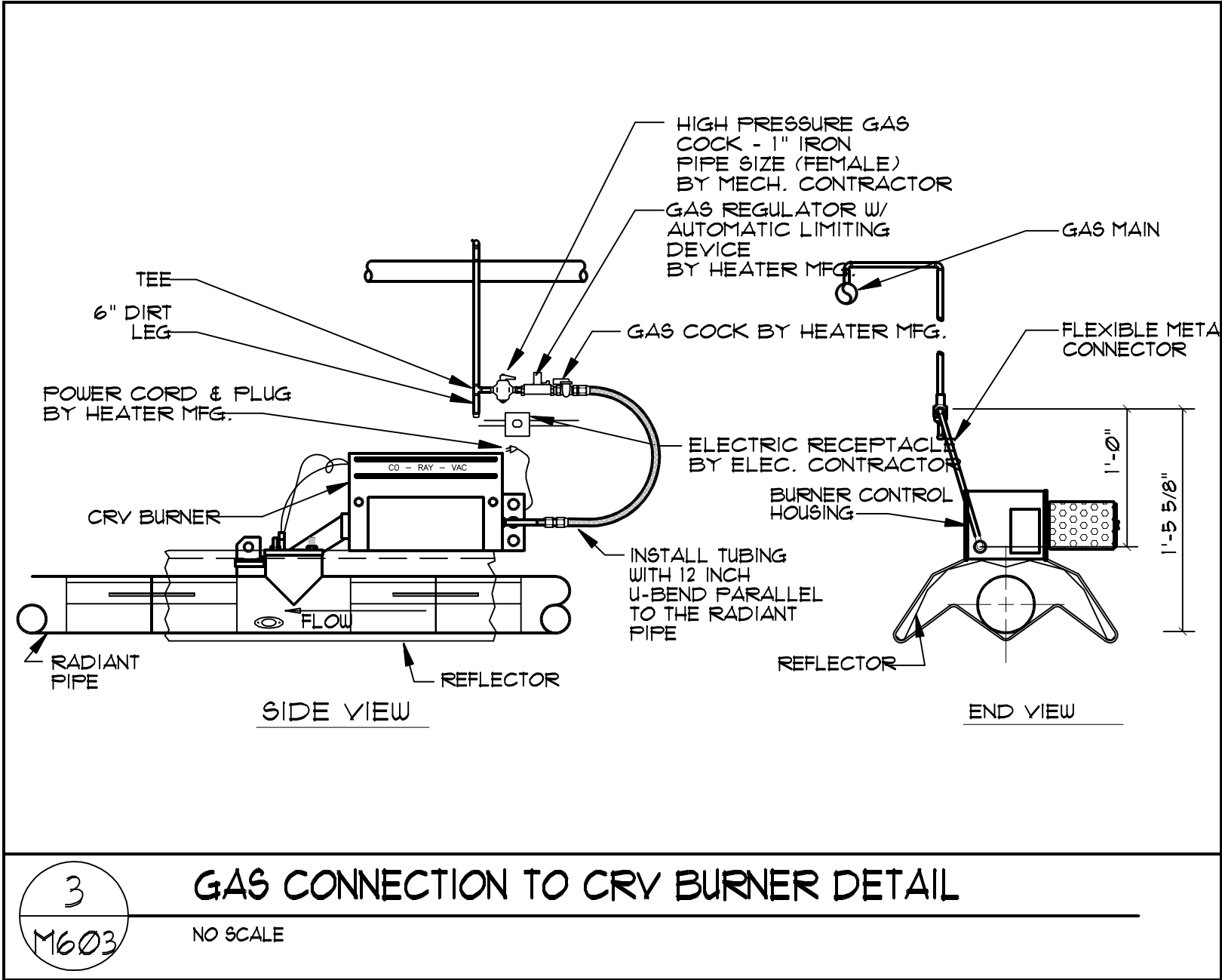
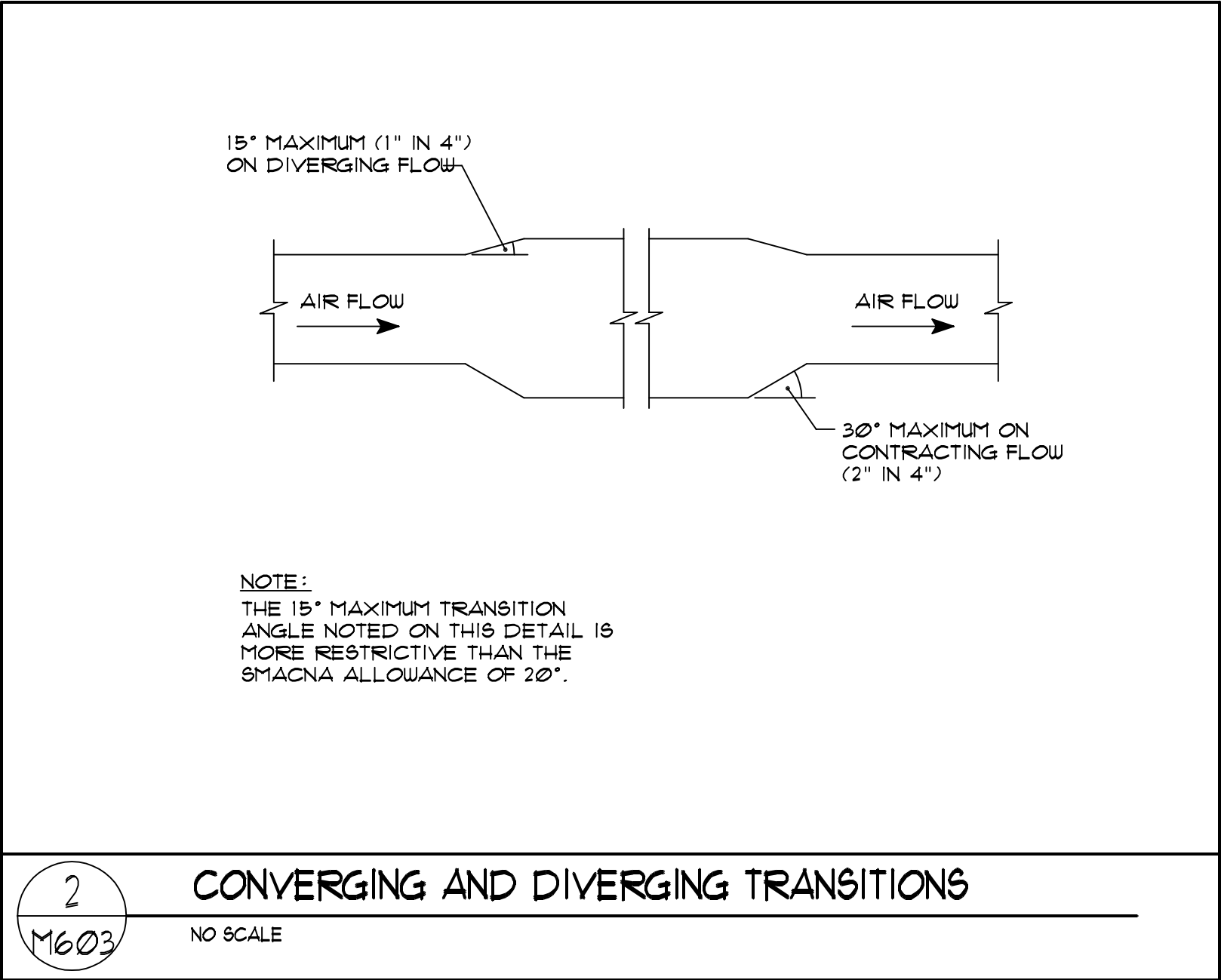
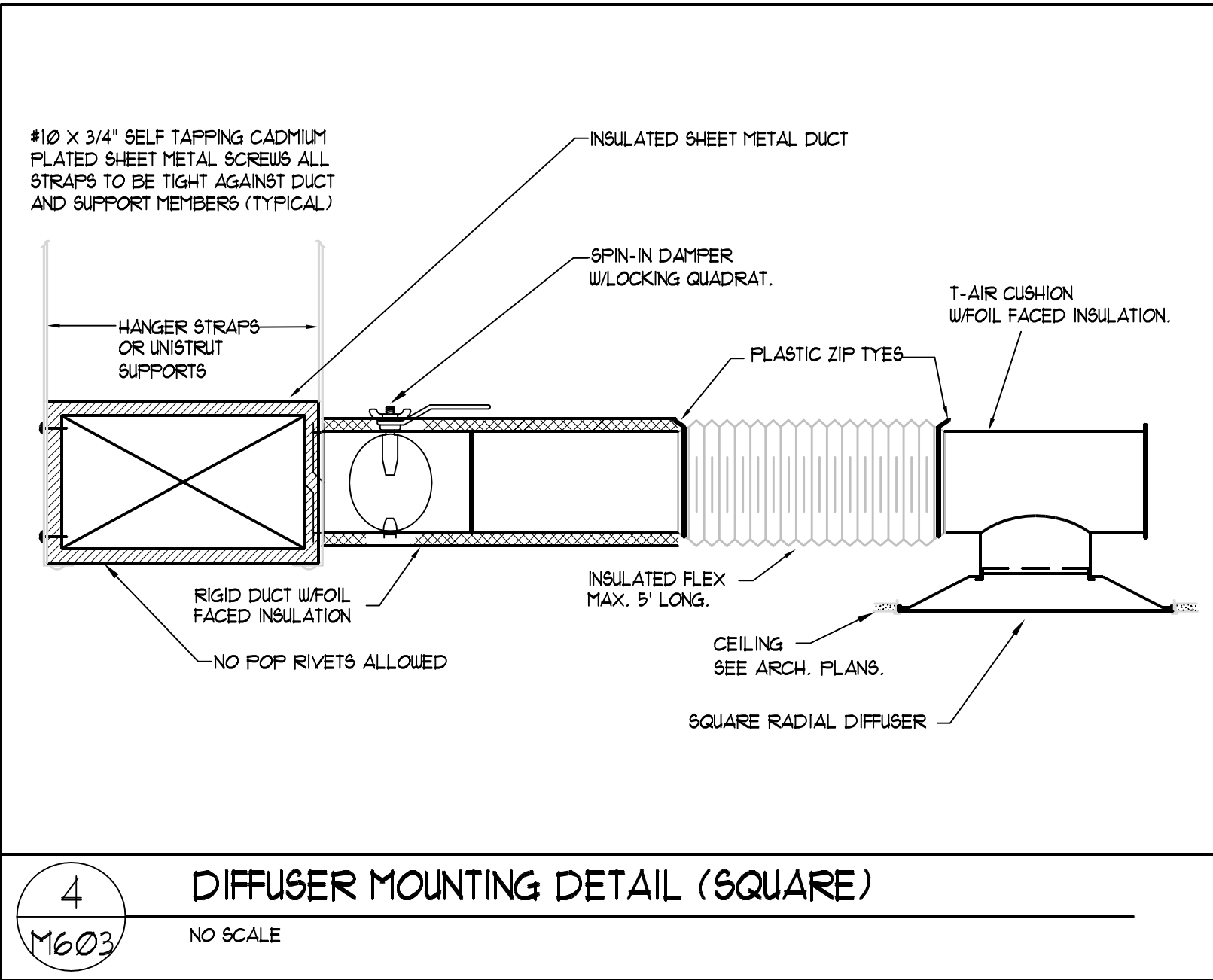
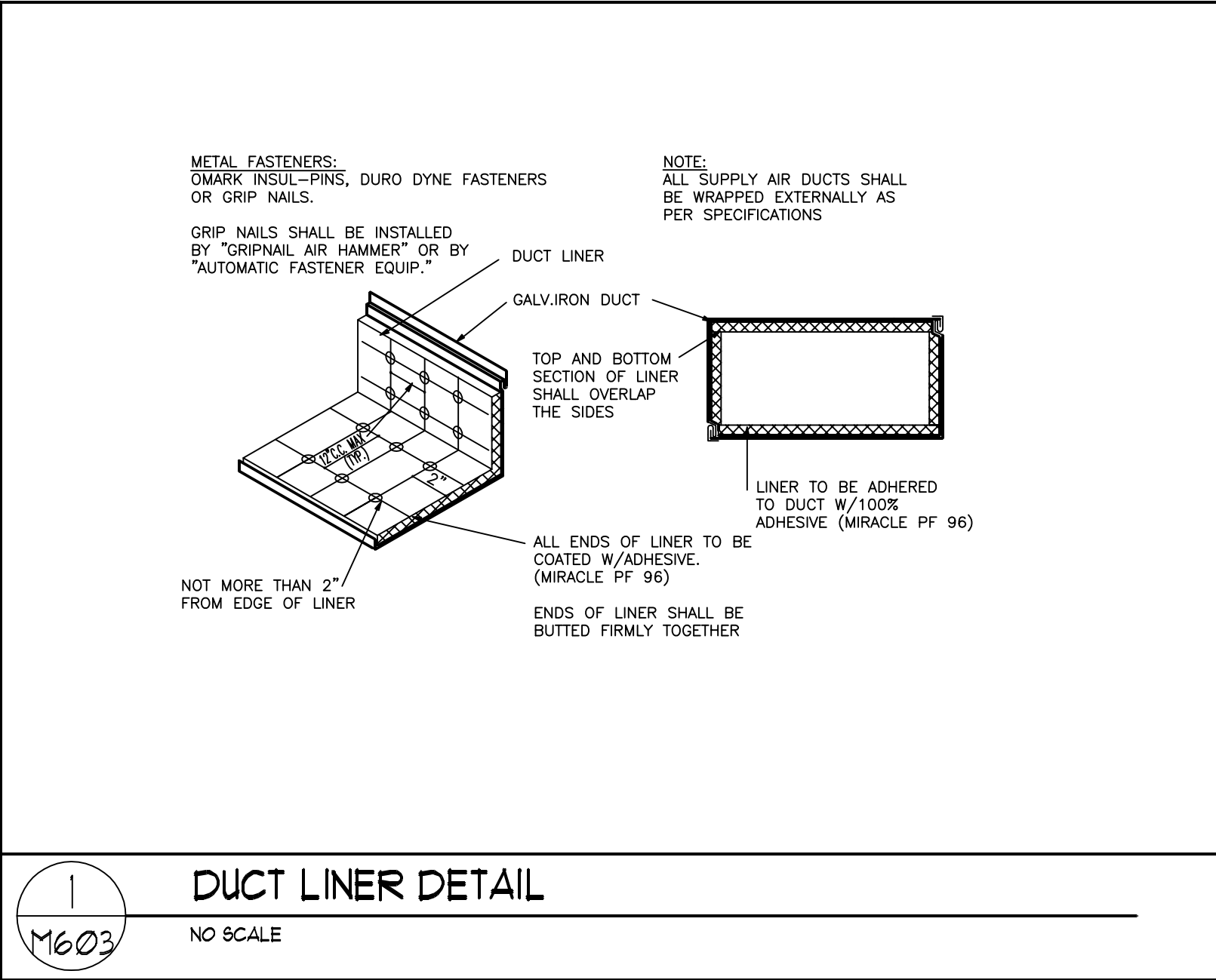


DUCT BRACING NOTES:

1. DESIGN RESTRAINTS PER SEISMIC ZONE 3.
  2. REFERENCE SMACNA SEISMIC RESTRAINT MANUAL.
  3. FOR DUCTWORK REQUIRING SEISMIC BRACING, INSTALL BRACES AS FOLLOWS:
    - a. TRANSVERSE BRACE AT EACH DUCT CHANGE OF DIRECTION, END OF DUCT RUN, AND AT 30'-0" O.C. FOR STRAIGHT RUNS.
    - b. LONGITUDINAL BRACE AT 60'-0" O.C.
    - c. TRANSVERSE BRACING OF ONE DUCT SECTION MAY ACT AS A LONGITUDINAL BRACE FOR A DUCT SECTION CONNECTED PERPENDICULAR TO IT, PROVIDING THE BRACE IS INSTALLED WITHIN FOUR FEET OF THE INTERSECTION AND IS SIZED FOR THE LARGEST DUCT.
- WALLS WHICH HAVE DUCTS PASSING THROUGH THEM MAY SUBSTITUTE FOR A TRANSVERSE BRACE.
- d. DO NOT USE JOIST BRIDGING FOR SUPPORT OF ANY LOAD.
  - e.
  - f. IF SUPPORTING LOADS ABOVE 50 LBS. BETWEEN JOIST PANEL POINTS REINFORCE BOTTOM CORO OF JOIST AS PER STRUCTURAL ENGINEERS REQUIREMENTS, REFER TO SUPPORT DETAILS ON STRUCTURAL DRAWINGS.

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Dr: Jyrcd: Mar 10, 2009 - 4:53pm, 13 Projpath: 2009\08276.00.01 - Scofield Maint. Sub\MECH-08276.00.dwg



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SHEET TITLE

MECHANICAL  
DETAILS

M603



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Dr. Brent Lee 10, 2009 - 4:53pm, 13 Projpath\2009\082706.001 - Scofield Plant, Salt Lake - 082706.00.dwg

PIPING LEGEND (NOT ALL USED)			
GATE VALVE		CHILLED WATER SUPPLY	CHS
OS & Y PATTERN GATE VALVE		CHILLED WATER RETURN	CHR
BALL VALVE		CONDENSER WATER SUPPLY	CWS
BUTTERFLY VALVE		CONDENSER WATER RETURN	CWR
MOTORIZED BUTTERFLY VALVE		HEATING WATER SUPPLY	HWS
HEAT TRACING		HEATING WATER RETURN	HWR
DEIONIZED WATER	DI	WATER TREATMENT	WT
CHECK VALVE		FIRE DEPT. HORN & LIGHT	
SOLENOID VALVE		HOT GAS	HG
AUTOMATIC CONTROL VALVE (2-WAY)		FLEXIBLE PIPE CONNECTION	
AUTOMATIC CONTROL VALVE (3-WAY)		REDUCED PRESSURE BACKFLOW PREVENTER	RBPB
PRESSURE REDUCING VALVE		DIRECTION OF FLOW	
P & T RELIEF VALVE		ELBOW DOWN (DN)	
AIR VENT (AUTOMATIC)		ELBOW UP	
REFRIGERANT LIQUID	RL	PIPE CAP	
REFRIGERANT SUCTION	RS	TEE DOWN	
THERMAL EXPANSION VALVE		UNION	
STRAINER		DOMESTIC COLD WATER	— — —
CIRCUIT SETTER		DOMESTIC HOT WATER	— — — —
FLOW METER		HOT WATER CIRC.	— — — —
PET COCK OR GAUGE COCK		TEMPERED WATER	T
PRESSURE GAUGE W/GAUGE COCK		SANITARY (PLBG) VENT	-----
THERMOMETER		SANITARY SEWER ABOVE GRADE	=====
TEMPERATURE & PRESSURE TEST PLUG		SANITARY SEWER BELOW GRADE	-----
IN-LINE PUMP		DRAIN	D
FLOW SWITCH		ROOF DRAIN PIPING	RD
AQUASTAT		OVERFLOW DRAIN PIPING	OD
HOSE BIBB OR GILLCOCK		STORM DRAIN PIPING ABOVE GRADE	SD
VACUUM	V	STORM DRAIN PIPING BELOW GRADE	SD
FLOOR DRAIN		FIRE SERVICE	F
FLOOR SINK		NATURAL GAS	G
HOT GAS BYPASS	HGBP	COMPRESSED AIR	CA
WALL CLEANOUT OR CLEANOUT		VENT THROUGH ROOF	
FLOOR OR GRADE CLEANOUT		STEAM	S
GRADE CLEANOUT W/ CONCRETE PAD		CONDENSATE	C
		WASTE OIL	WO

GENERAL NOTES:

- COORDINATE ALL AIR DEVICE LOCATIONS WITH REFLECTED CEILING PLANS AND ELECTRICAL DRAWINGS.
- DUCTWORK AND PIPE ROUTING AS SHOWN ON DRAWINGS IS DIAGRAMMATIC AND IS NOT TO BE SCALED. WHERE ALTERNATE ROUTING, OFFSETS AND TRANSITIONS ARE REQUIRED FOR COORDINATION OF WORK, THIS CONTRACTOR SHALL MAKE CHANGES WITHOUT ADDITIONAL COSTS.
- THIS CONTRACTOR SHALL CLOSELY COORDINATE NEW MECHANICAL WITH NEW ELECTRICAL, ARCHITECTURAL AND BUILDING STRUCTURE.
- THIS CONTRACTOR SHALL FIELD VERIFY ALL MECHANICAL ITEMS PRIOR TO STARTING NEW WORK. ADDITIONAL COST WILL NOT BE ALLOWED FOR CONTRACTOR'S FAILURE TO BECOME FAMILIAR WITH SITE CONDITIONS.
- ALL MECHANICAL SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT ADOPTED EDITION OF THE BUILDING CODES, FIRE CODES, MECHANICAL CODES AND PLUMBING CODES.
- THIS CONTRACTOR SHALL PROVIDE SUBMITTALS ON ITEMS LISTED IN MECHANICAL EQUIPMENT LIST TO THE ENGINEER FOR REVIEW PRIOR TO THE ORDER, PURCHASE OR INSTALLATION.
- ALL DOMESTIC COLD AND DOMESTIC HEATING WATER PIPING SHALL BE TYPE 'L' COPPER. ALL WASTE AND VENT PIPING SHALL BE CAST IRON. ALL ROOF AND OVERFLOW DRAINAGE PIPING TO BE CAST IRON.
- PROVIDE INSULATION FOR THE FOLLOWING:
  - DOMESTIC HOT WATER PIPING AND HOT WATER RECIRCULATION PIPING:  
1" THICK FOR ALL PIPE SIZES.
  - DOMESTIC COLD WATER PIPING:  
1/2" THICK FOR PIPE SIZES 1/2" TO 6".  
(PROVIDE CONTINUOUS VAPOR BARRIER.)
- INSULATE PIPING WITH FIBERGLASS PIPE COVERING WITH ALL SERVICE JACKET AND SELF-CAP SEAL. FITTINGS SHALL BE MITERED PIPING COVERING OF GLASS FIBER MOLDDED FITTINGS FOR USE IN A RETURN AIR FLENUM. THERMAL CONDUCTIVITY SHALL BE A MAXIMUM OF .25/INCH THICKNESS AT 75°F.
- EACH TRADE IS RESPONSIBLE THEIR OWN FIRE CAULKING.
- HOUSEKEEPING PADS FOR ALL EQUIPMENT IS PROVIDED AND INSTALLED BY GENERAL CONTRACTOR. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR.
- DIVISION IS TO SUBMIT TO ENGINEER ALL AS-BUILTS OF BUILDINGS MECHANICAL AND PLUMBING SYSTEMS PRIOR TO JOB COMPLETION AND FINAL PAYMENT.
- WATER DISINFECTANT AND AIR BALANCE REPORT TO BE TURNED TO ENGINEER FOR REVIEW PRIOR TO SUBSTANTIAL COMPLETION WALK-THROUGH.
- PROJECT ELEVATION IS 7676' ABOVE SEA LEVEL.
- DO NOT SUPPORT MECHANICAL EQUIPMENT AND/OR PLUMBING FROM ROOF DECK. SUPPORT FROM BUILDING STRUCTURE OR FLOOR IS ACCEPTABLE.

PLUMBING FIXTURE CONNECTION SCHEDULE

PLAN CODE	DESCRIPTION	CONNECTION SIZE					COMMENTS
		C.W.	H.W.	WASTE	VENT	TRAP	
WC-1	WATER CLOSET	1/2"	-	4"	2"	INT.	FLOOR MOUNTED TANK TYPE. CRANE - HYMONT #31055, 18 INCH RIM HEIGHT, MAXIMUM WATER USAGE OF 1.6 GALLONS PER FLUSH. TANK TO HAVE PRESSURE ASSISTED FLUSH. SEAT - PROVIDE SPLIT FRONT TYPE WITH CHECK HINGE, BENIS #1955C PROVIDE CHROME PLATED SUPPLY AND STOP
L-1	LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	1-1/2"	WALL MOUNTED, CRANE #1412V, HANDICAP TYPE, VITREOUS CHINA, SELF SUPPORTING FIXTURE, SIZE 24"x21". FAUCET AND DRAIN - SYMMONS 6-62020 WITH DRAIN GRID, BATTERY OPERATED WITH BATTERY INSIDE BODY OF FAUCET. PROVIDE CHROME PLATED SUPPLIES AND STOPS. DEARBORN, 17 GA TUBE "P" TRAP, CHROME PLATED. FITTINGS AND TRAP TO BE INSULATED TO MEET ADA REQUIREMENTS PROVIDE MCGUIRES FROURAP. PROVIDE WITH CARRIER
S-1	UTILITY SINK	1/2"	1/2"	3"	1-1/2"	3"	ELKAY E550U 2510-C WALL MOUNTED 304 14 GAUGE STAINLESS STEEL SERVICE SINK WITH HOSE THREAD, VACUUM BREAKER, WALL BRACKET AND PAIL HOOK SPOUT AND LK173 CAST IRON P-TRAP.
U-1	URINAL	3/4"	-	2"	1-1/2"	INT.	WALL MOUNTED URINAL CRANE #7197, 1.0 GPF. VITREOUS CHINA MOUNT 17" A.F.F. TO MEET ADA REQUIREMENTS. PROVIDE WITH SLOAN #8186 G2 OPTIMA PLUS BATTERY OPERATED FLUSHMETER, FLUSHMETER TO HAVE MANUAL OVERRIDE (URINAL SHALL FIT SPACE AVAILABLE.) PROVIDE CARRIER.
HB-1	HOSE BIBB	3/4"	-	-	-	-	SINGLE SPOUT WITH HOSE CONNECTION. PROVIDE WITH VACUUM BREAKER AND METAL HANDLE. (PLASTIC HANDLES ARE NOT ACCEPTABLE.) CHICAGO MODEL NO. 293 WITH E27 VACUUM BREAKER
WH-1	WALL HYDRANT	3/4"	-	-	-	-	WADE W8600175 NON-FREEZE WALL HYDRANT WITH NICKEL BRONZE BOX, COMPLETE WITH CHROME PLATED LOCKING COVER AND BOX WITH INTEGRAL VACUUM BREAKER. WALL HYDRANT TO BE SIZED FOR WALL THICKNESS.
FD-1	FLOOR DRAIN	-	-	3"	1-1/2"	2"	FLOOR DRAIN J.R. SMITH #2005-A. WITH NICKEL BRONZE STRAINER, DEEP SEAL TRAP AND FROSET TRAP GUARD.
S-2	DOUBLE COMPARTMENT SINK	1/2"	1/2"	2"	1-1/2"	2"	JUST #DL-ADA-2233-A-GR, STAINLESS STEEL DOUBLE COMPARTMENT, SELF RIMMING, SIZE 22"x33" OD WITH TWO COMPARTMENTS THAT ARE 16"x14"x8" DEEP, MATERIAL - 18 GAUGE TYPE 304 STAINLESS STEEL, SEAMLESS DIE DRAIN. INTERIOR SURFACES POLISHED TO A NON-POROUS FINISH. UNDERSIDE TO BE FULLY COATED INSULATED FOR SOUND AND CONDENSATION REDUCTION. FAUCET AND DRAIN - GOOSENECK WITH SPRAY. JUST JUF-201 WITH TEAR DROP HANDLES AND JB-95 DRAIN OR APPROVED EQUAL. PROVIDE WITH CHROME PLATED SUPPLY AND STOPS. DEARBORN 17 GA TUBE "P" TRAP, CHROME PLATED.
FS-1	FLOOR SINK	-	-	2"	1-1/2"	2"	FLOOR SINK J.R. SMITH #3020. COMPLETE WITH ACID RESISTANT COATED INTERIOR AND POLISHED ALUMINUM DOME BOTTOM STRAINER. PROVIDE FROSET TRAP GUARD IN THE BOTTOM OF THE FLOOR SINK.
DF-1	DRINKING FOUNTAIN	1/2"	-	2"	1-1/2"	1-1/2"	BI-LEVEL, ADA COMPLIANT WATER COOLER DRINKING FOUNTAIN, ACORN #A12109F, 8 GPH, 304 STAINLESS STEEL TOP, GRANITE POWDER COATED GALVANIZED CABINET. POLISHED CHROME PLATED BRASS BUBBLER, CONCEALED SUPPORT CARRIER, GLASS FILLER WITH LEVEL HANDLE, 100 MESH INLET STRAINER, 120 VOLT, 400 WATTS.
TD-1	TRENCH DRAIN	-	-	3"	2"	3"	TRENCH DRAIN J.R. SMITH #9331, COMPLETE WITH HEAVY DUTY FRAME, LOAD CLASS C STAINLESS STEEL SLOTTED GRATE, FULLY SLOPED CHANNELS.
TMV-1	TEMPERATURE MIXING VALVE	3/4"	3/4"	-	-	-	EMERGENCY FIXTURE THERMOSTATIC MIXING VALVE, BRADLEY #S19-2100 COMPLETE WITH CHROME PLATED FINISH, STAINLESS STEEL SURFACE MOUNTED BOX, INTEGRAL STRAINER CHECK STOPS ON INLET BUILT IN COLD WATER BYPASS, HOT WATER SHUT OFF WHEN COLD SUPPLY IS LOST, OUTLET TEMPERATURE GAUGE. 25 GPM @ 15 PSI PRESSURE DROP. SET TEMPERATURE TO 85°.
WOT-1	WASTE OIL TANK	-	-	1-1/2"	-	-	WASTE OIL TANK 10 GAUGE, WESTECH LUBE CUBE PRODUCT CODE #LCAA128008000, 280 GALLON, 4'x3'x2'-8"wx3'-10"t. UL #142 AND NFPA 30. DOUBLE-WALL, SKID MOUNT, EMERGENCY VENT OPENING, SKID MOUNT, LIFTING LUGS, INDUSTRIAL EPOXY COATING, INTERIOR COATING. PROVIDE WITH LINCOLN 85627 1" ALUMINUM DIAPHRAM PUMP AND LINCOLN #84816 4-WAY VALVE. INSTALL TANK, PUMP AND VALVE PER MANUFACTURERS INSTRUCTIONS.
ES-1	EMERGENCY EYEWASH & SHOWER	1-1/4"	-	-	-	-	BRADLEY 919-31055F11 FLOOR MOUNTED SAFETY STATION COMBINATION EYEWASH AND EMERGENCY SHOWER. ALUMINUM FLOOR FLANGE AND GALVANIZED INTERMEDIATE PIPE AND FITTINGS, TWO SOFT STREAM OUTLET HEADS, STAINLESS STEEL BOWL AND STAY OPEN TYPE VALVE ON EYEWASH, ORANGE CYCLOC PLASTIC SHOWER HEAD WITH STAY OPEN VALVE (OPERATED BY PULL ROD AND HANDLE), 1-1/4" IPS FEMALE INLET AND OUTLET.

GAS FIRED WATER HEATER SCHEDULE

SYMBOL	MFR. CATALOG NO.	SERVICE	CAPACITY GALLONS	FUEL GAS	INPUT BTU	RECOV GPH	TANK SIZE	TEMP F IN/OUT	FLUE SIZE	REMARKS
GWH-1	A.O. SMITH #GVR-50	HOT WATER	50	PROPANE	37,000	41	22"x66" TALL	40°/140°	4"	① ② ③ ④

① PROVIDE WITH EXPANSION TANK. A.O. SMITH-AHTROL 9T-5-2 GAL, 8"x12"H ② 80% EFFICIENCY ③ TYPE B FLUE ④ INSTALL PER MANUFACTURERS REQUIREMENTS

CIRCULATION PUMP SCHEDULE [CP-]

PLAN CODE	DUTY	GPM	FEET OF HEAD	PUMP RPT	MOTOR H.P.	VOLTAGE & PHASE	MANUFACTURER & MODEL NO.	COMMENTS
CP-1	DOMESTIC HOT WATER RECIRCULATION	1	4	3250	1/40	115	TACO #003PFP	SEE HOT WATER HEATER DETAIL FOR INSTALLATION REQ.

CLIENT



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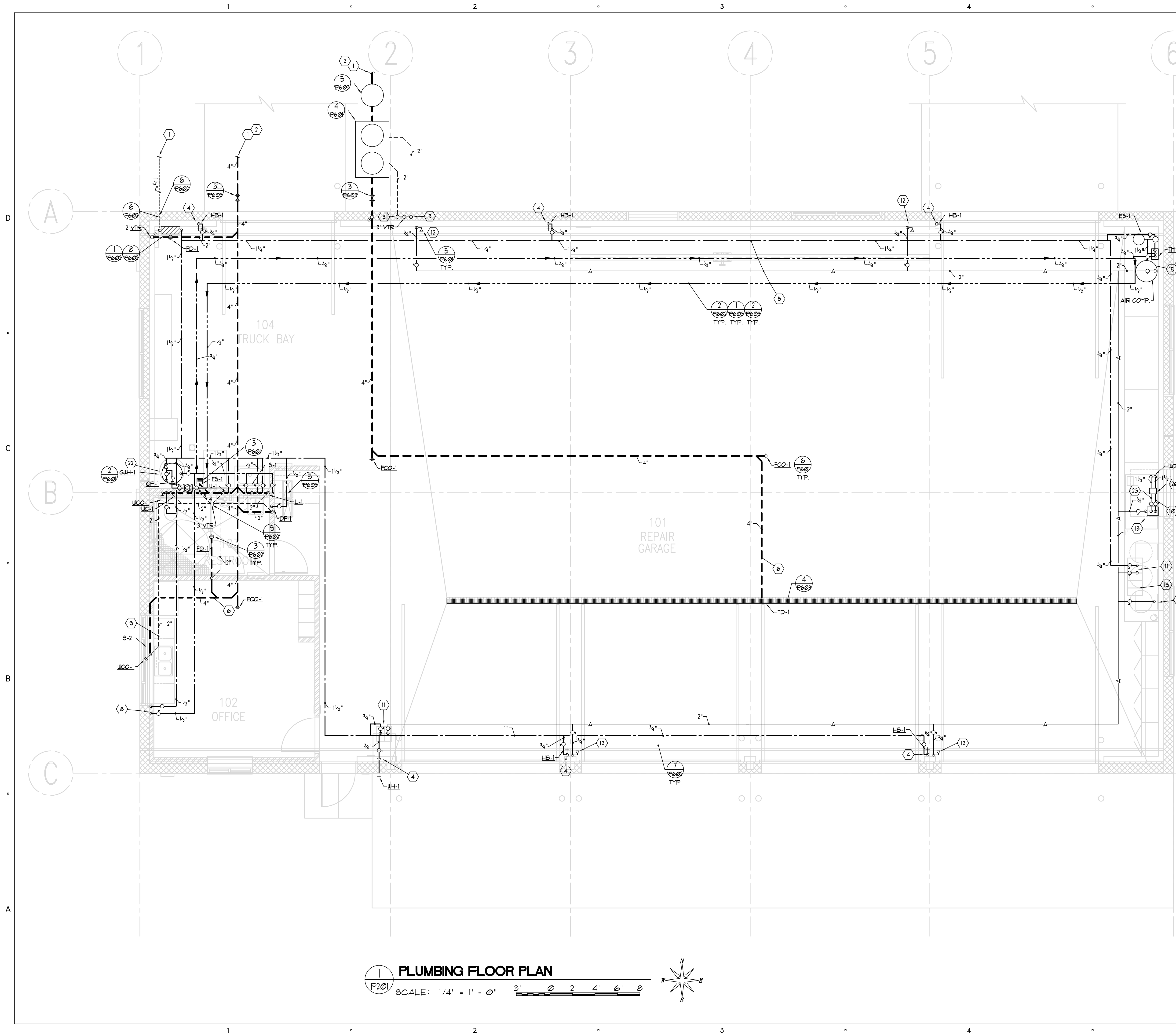
SHEET TITLE

PLUMBING  
LEGEND AND  
SCHEDULES

P001

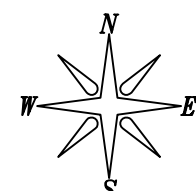
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- KEYED NOTES:**
- SEE SITE DRAWINGS FOR CONTINUATION.
  - SEE CIVIL DRAWINGS FOR INVERT ELEVATION. GENERAL CONTRACTOR IS TO COORDINATE WITH HIS SUBS TO VERIFY SITE SANITARY SEWER AND BUILDING SANITARY SEWER PIPE WILL PROPERLY CONNECT PRIOR TO INSTALLING ANY SANITARY PIPE IN THE SITE OR BUILDING. IF A PROBLEM EXISTS, THE CONTRACTOR IS TO INFORM THE ARCHITECT OF THE PROBLEM PRIOR TO INSTALLING ANY PIPE. IF PIPE IS INSTALLED AND A PROBLEM ARISES, THE CONTRACTOR, AT HIS EXPENSE, SHALL PERFORM ANY WORK REQUIRED SUCH THAT THE SANITARY PIPE CAN BE INSTALLED CORRECTLY TO CODE STANDARDS.
  - VENTS FROM SAND/OIL SEPARATOR MAY BE COMBINED AFTER THEY ARE 10' ABOVE FLOOD RIM OF SEPARATOR AND THEN CONNECTED TO VEHICLE STORAGE BAY WASTE SYSTEM VENT PIPE.
  - PROVIDE PVC COVER OVER INSULATION TO 8'-0" AFF. MOUNT HB-1 3'-0" AFF.
  - ROUTE PIPING ABOVE STRUCTURE.
  - ALL WASTE PIPING 3" AND GREATER TO SLOPE 1/8" PER FOOT.
  - PIPE SLEEVES REQUIRED ON THIS PROJECT. IF CONTRACTOR FAILS TO INSTALL PIPE SLEEVES, THE CONTRACTOR SHALL REMOVE PIPE, INSTALL SLEEVE AND REINSTALL PIPE AT NO ADDITIONAL EXPENSE TO THE OWNER.
  - RUN HOT AND COLD WATER PIPE UNDER CABINET TO SINK.
  - RUN VENT LINE UNDER CABINET UNTIL IT CLEARS THE WINDOW.
  - CONNECT OIL DRAIN LINE TO DRAIN PUMP. RUN DRAIN LINE FROM PUMP TO 4-WAY VALVE AND TO WOT-1 (WASTE OIL TANK). PROVIDE SHUTOFF VALVE AND UNION TO CATCH TANK. DRAIN PUMP BY CONTRACTOR. FIELD VERIFY LOCATION EXACT LOCATION OF TANK AND OIL DRAIN CONNECTION POINT LOCATION. INSTALL PER MANUFACTURERS INSTRUCTIONS.
  - CONNECT 1" COMPRESSED AIR LINE AND 3/4" CU LINE TO OVERHEAD HOSE REEL. PROVIDE SHUTOFF AND UNION. HOSE REEL BY CONTRACTOR.
  - 3/4" COMPRESSED AIR DROP DOWN TO QUICK DISCONNECT. PROVIDE SHUTOFF VALVE. VERIFY MOUNTING HEIGHT WITH OWNER. REFER TO DETAIL 5/P601.
  - DROP 3/4" COMPRESSED AIR DOWN TO OIL DRAIN PUMP. PROVIDE SHUTOFF VALVE.
  - DROP 1" COMPRESSED AIR LINE TO LUBE BARRELS. PROVIDE SHUTOFF VALVE. LUBE BARRELS BY OWNER, INSTALLED BY CONTRACTOR.
  - AIR COMPRESSOR BY CURRENTLY ON SITE. #ALVAGED BY CONTRACTOR AND INSTALLED IN LOCATION SHOWN. CONNECT 2" COMPRESSED AIR LINE TO COMPRESSOR. PROVIDE SHUTOFF VALVE, UNION, ISOLATION PADS AND FLEXIBLE HOSE CONNECTION.
  - GAS LINE DOWN TO BURNER. PROVIDE SHUTOFF VALVE, UNION AND APPLIANCE REGULATOR REFERENCE DETAIL 2/M1603.
  - DROP AIR LINE DOWN COLUMN FACE AND TERMINATE WITH QUICK COUPLER 3'-0" A.F.F.
  - CONNECT TO EXISTING BUILDING SANITARY SEWER. FIELD VERIFY EXACT LOCATION AND INVERT ELEVATION TO PROVIDE PROPER FLOW TO NEW SEPTIC DRAIN FIELD.
  - 7 EACH TOTAL HOSE REELS FOR GREASE, OIL, LUBE, AIR AND WATER.
  - 4-WAY VALVE. INSTALL PER MANUFACTURERS INSTRUCTIONS.
  - RELOCATE EXISTING AIR COMPRESSOR TO APPROXIMATE SHOWN LOCATION.
  - MOUNT GAS WATER HEATER 18" A.F.F. PROVIDE EXPANSION TANK AS SPECIFIED BY MANUFACTURER.

**PLUMBING FLOOR PLAN**  
SCALE: 1/4" = 1' - 0"  
3' 0" 2' 4' 6' 8'



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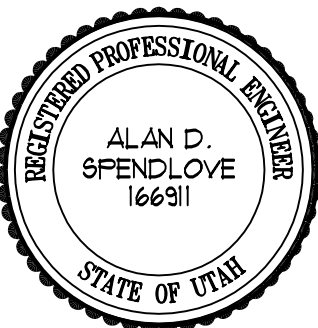
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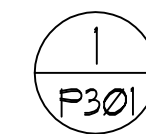
MARK	DATE	DESCRIPTION
DFCM PROJECT NO:		08300900
DFCM CONTRACT NO:		97236
ARCHIPLEX PROJECT NO:		0837.01
DRAWN BY:		JB
CHECKED BY:		ADS
SCALE:		
DATE:		FEBRUARY, 2009

SHEET TITLE

PLUMBING FLOOR  
PLAN

P201





SCALE: NOT TO SCALE

P301

# EXTERIOR CLEANOUT DETAIL

2 GAS FIRED WATER HEATER  
P601 NO SCALE

3 INDIRECT WASTE DETAIL  
P601 NO SCALE

**NOTES:**

PIPING, CLEANOUT CONFIGURATION, SIZE AND TYPE OF PIPING MATERIAL 78 PER CITY OR SANITARY DISTRICT. INSPECTION BY SOUTH VALLEY WATER RECLAMATION DISTRICT (SWVR) PRIOR TO BACKFILLING IS REQUIRED.

INTERCEPTOR PIPING AND OTHER ASSOCIATED PIPING CHANGES THAT ARE NECESSARY TO INSTALL INTERCEPTOR MUST BE IN ACCORDANCE WITH LOCAL REGULATIONS.

INTERCEPTOR MUST BE PROPERLY VENTED IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODE STANDARDS.

CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.

REINFORCING STEEL SHALL BE ASTM A603 GRADE 60.

THE CONCRETE COVER OVER REINFORCEMENT STEEL SHALL BE A MINIMUM OF 1-1/2".

THE STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH. THE DESIGNED SHALL BE SUBMITTED FOR APPROVAL TO THE ARCHITECT PRIOR TO INSTALLATION.

THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADING CRITERIA.

- A. WALL DESIGN FOR A SATURATED EQUIVALENT FLUID AT REST SOIL PRESSURE OF 90 PCF PLUS TRUCK SURCHARGES.
- B. TRUCK LOADING USING AN AASHTO H-20 TRUCK LOAD.

MANWAY FRAME & COVER SHALL BE A TRAFFIC TYPE CASTING FOR H-20 TRUCK LOAD.

THE INLET PIPE SHALL BE AT AN ELEVATION 1" HIGHER THAN THE OUTLET PIPE.

WHERE THE SEWER LINE ALREADY EXIST, THE SEWER INVER INTO AND OUT OF THE INTERCEPTOR SHALL BE 4'-0" ABOVE THE INTERCEPTOR FLOOR.

THE Baffle IN THE INTERCEPTOR SHALL BE WITHIN 3" OF THE CEILING OF THE INTERCEPTOR.

COVER SHALL BE CIRCULAR AND BE SOLID.

SANITARY WASTE FROM TOILETS MUST NOT BE PLUMBED THROUGH THE INTERCEPTOR.

INTERCEPTOR MUST BE LOCATED IN SUCH A MANNER THAT IT IS READILY ACCESSIBLE FOR CLEANING.

FIELD VERIFY INVERT ELEVATIONS OF INLET AND OUTLET PIPING PRIOR TO INSTALLING INTERCEPTOR.

CONTRACTOR SHALL OBTAIN OFFICIAL LOCAL JURISDICTION WATER RECLAMATION DISTRICT INTERCEPTOR DESIGN AND INSTALL PER THEIR REQUIREMENTS.

5 COMPRESSED AIR OUTLET CONNECTION DETAIL  
P601 NO SCALE

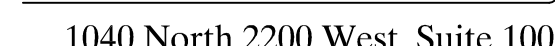
4 1000 GALLON GREASE INTERCEPTOR DETAIL-2 COMPARTMENT  
P601 NO SCALE

6 FLOOR CLEANOUT  
P601 NO SCALE



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MARK	DATE	DESCRIPTION
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DFCM PROJECT NO: 0830090

DFCM CONTRACT NO: 9723

ARCHIPLEX PROJECT NO: 0837.0

DRAWN BY: J

CHECKED BY: \_\_\_\_\_ AD \_\_\_\_\_

SCALE: \_\_\_\_\_

DATE: FEBRUARY, 200

SHEET TITLE

## PLUMBING DETAILS

P602





1. DESIGN SUPPORT SYSTEM FOR SEISMIC ZONE 4.
2. REFERENCE SMACNA SEISMIC RESTRAINT MANUAL.
3. SEISMIC BRACING IS REQUIRED FOR ALL PIPING 2-1/2" AND LARGER.
4. DO NOT USE BRANCH SECTIONS TO BRACE PIPING MAINS.
5. PROVIDE FLEXIBLE COUPLINGS AT PENETRATIONS THROUGH BUILDING SEISMIC AND EXPANSION JOINTS AND WHERE PIPING IS RIGIDLY CONNECTED TO EQUIPMENT.
6. FOR EQUIPMENT REQUIRING SEISMIC BRACING, INSTALL BRACES AS FOLLOWS:
  - a. DO NOT USE JOIST BRIDGING FOR SUPPORT OF ANY LOAD.
  - b. IF SUPPORTING LOADS ABOVE 50 LBS. BETWEEN JOIST PANEL POINTS REINFORCE BOTTOM CORD OF JOIST AS PER STRUCTURAL ENGINEERS REQUIREMENTS. REFER TO SUPPORT DETAILS ON STRUCTURAL DRAWINGS.

**NOTE:**

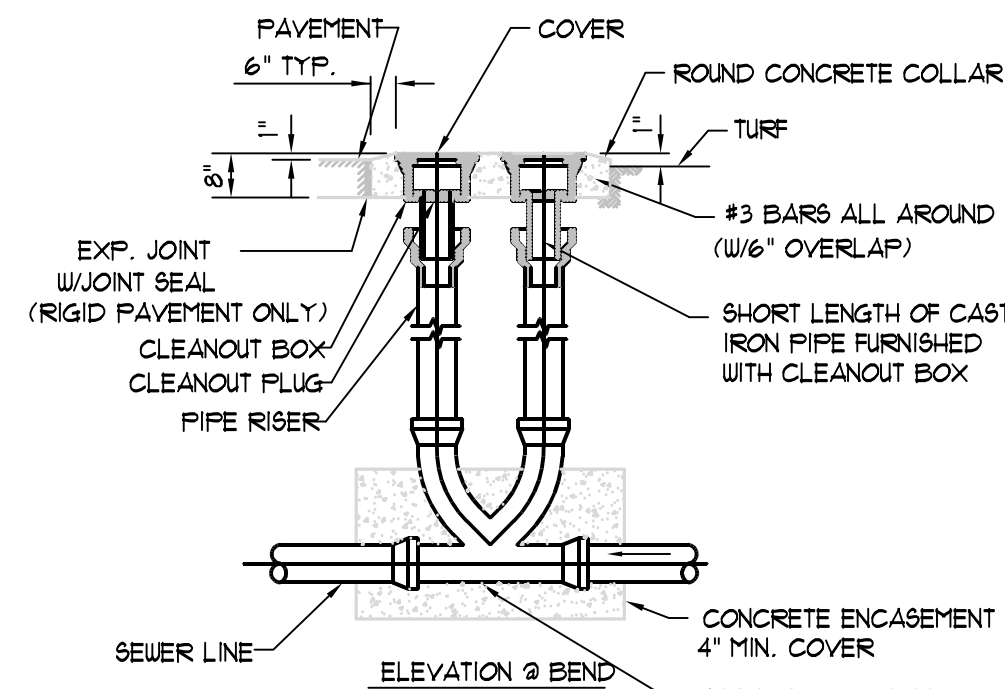
IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS AND AT ALL VALVES, BRANCHES, CHANGE IN DIRECTION OF FLOW AND BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATION DIRECTION OF FLOW.

**NOTE:** IDENTIFICATION MARKERS OR STRIPS TO BE PLACED ON ALL EXPOSED COVERED AND UNCOVERED PIPES AT 50'-0" INTERVALS AND AT ALL VALVES, BRANCHES, CHANGE IN DIRECTION OF FLOW AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL ALSO BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATION DIRECTION OF FLOW.

OUTSIDE DIAMETER OF PIPE OR COVERING		LENGTH OF COLOR FIELD A		SIZE OF LETTERS B	
INCHES	MM	INCHES	MM	INCHES	MM
3/4" TO 1-1/4"	19 TO 32	8"	200	3/4"	19
1-1/2" TO 2"	38 TO 51	8"	200	1 1/2"	13
2-1/2" TO 6"	64 TO 150	12"	300	1-1/4"	32
8" TO 10"	200 TO 250	24"	600	2-1/2"	64
OVER 10"	OVER 250	32"	800	3-1/2"	89

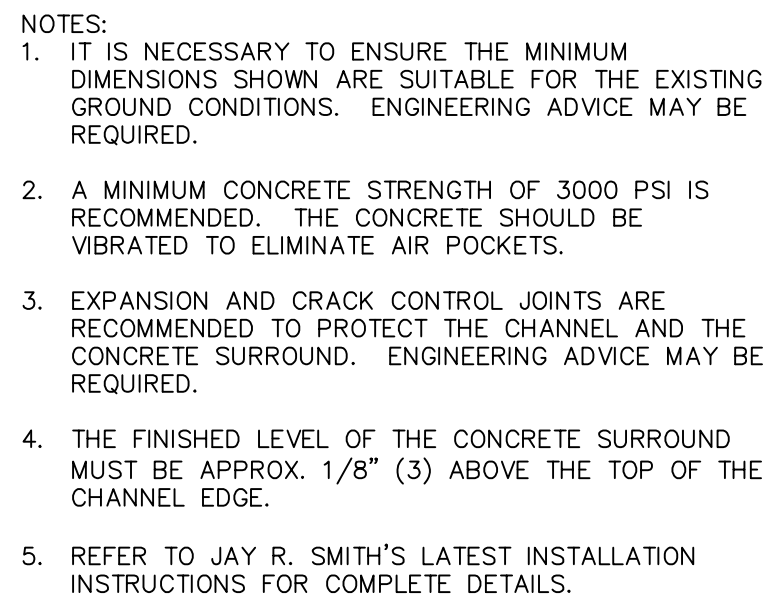
## 2 PIPE IDENTIFICATION DETAIL

NO SCALE



3 2-WAY DOUBLE CLEANOUT DETAIL

NO SCALE



**NOTE:**  
INSTALL PER MANUFACTURERS  
REQUIREMENTS

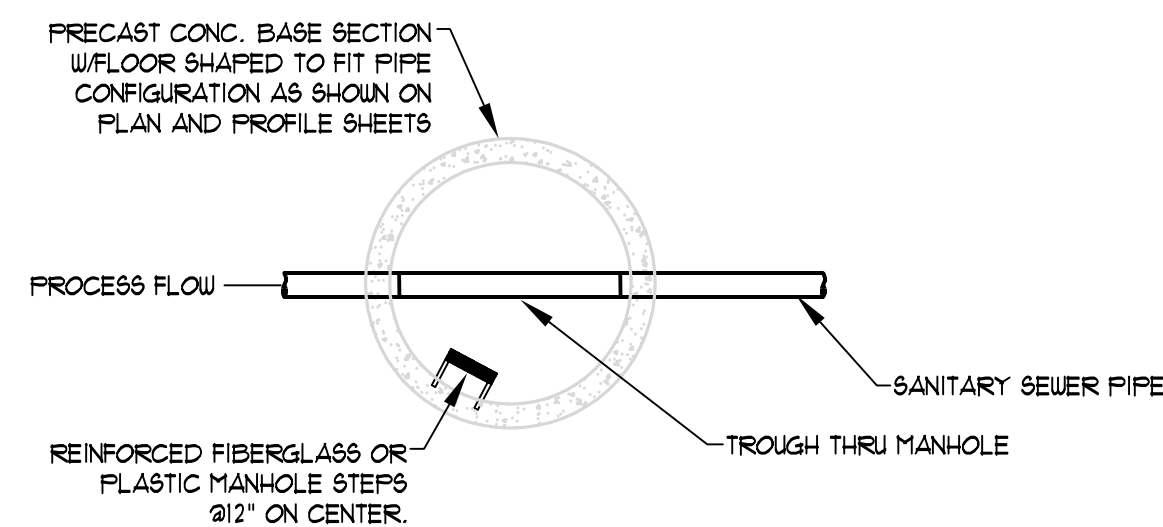
4 TYPICAL TRENCH DRAIN DETAIL

P603 NO SCALE

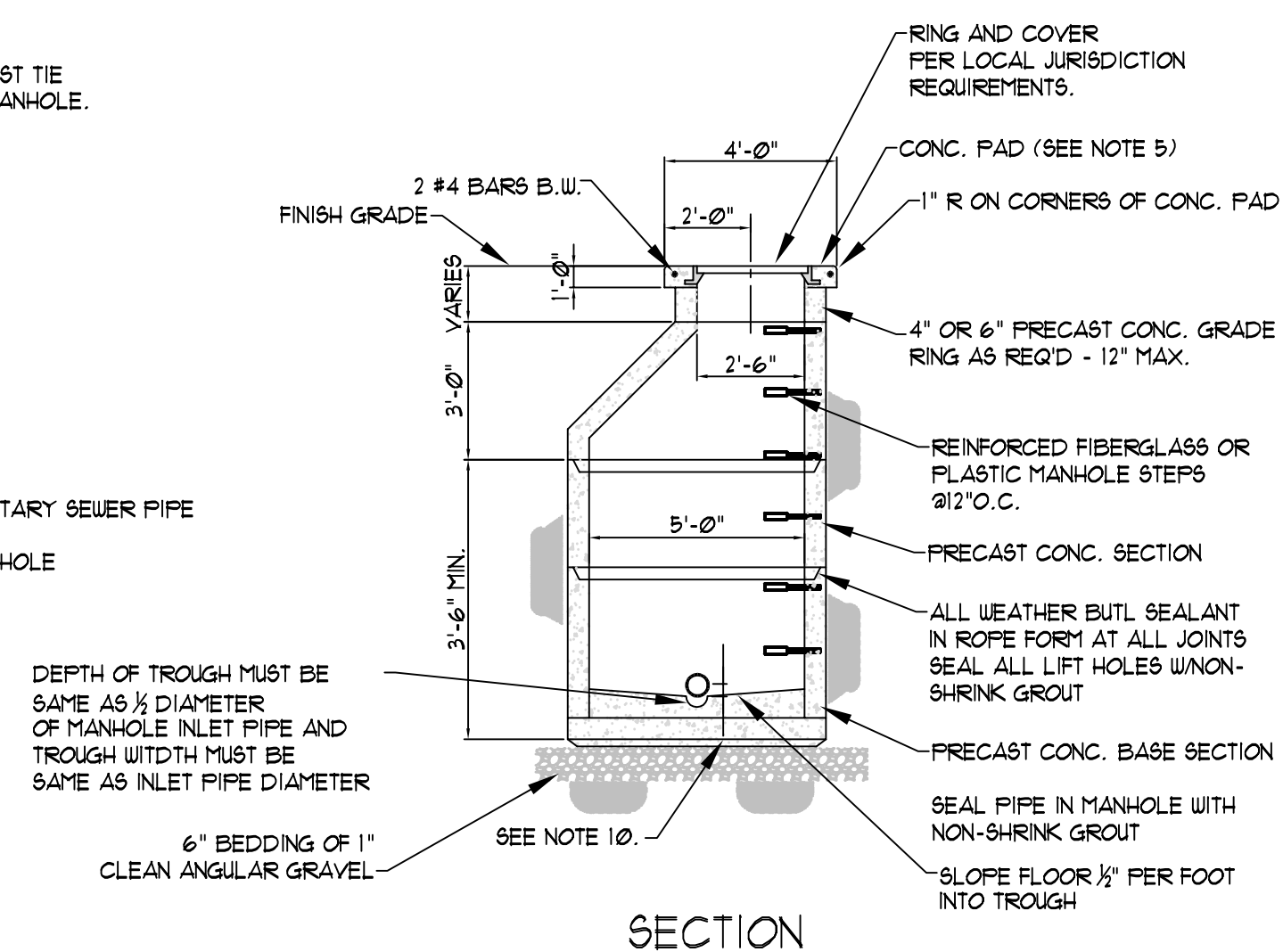
NOTES:

1. PIPING, CLEANOUT CONFIGURATION, SIZE AND TYPE OF PIPING MATERIAL, AS PER CITY OR SANITARY DISTRICT. INSPECTION BY SANITARY DISTRICT PRIOR TO BACKFILLING.
2. WIDTH OF TROUGH IN MANHOLE MUST BE SAME SIZE AS THE INLET PIPE INTO MANHOLE. DEPTH OF TROUGH MUST BE THE SAME AS  $\frac{1}{2}$  OF INLET PIPE DIAMETER
3. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI.
4. REINFORCEMENT STEEL SHALL BE ASTM A615 GRADE 60.
5. THE CONCRETE COVER OVER REINFORCEMENT STEEL SHALL BE A MINIMUM OF 1- $\frac{1}{2}$  INCHES.
6. THE STRUCTURE SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE STATE OF UTAH.
7. THE STRUCTURE SHALL BE DESIGNED FOR THE FOLLOWING LOADING CRITERIA:
  - A) WALLS DESIGNED FOR A SATURATED EQUIVALENT FLUID AT-REST SOIL PRESSURE OF 90 PCF PLUS TRUCK SURCHARGE
  - B) TRUCK LOADING USING AN ASHTO H-20 TRUCK LOAD.
8. MANHOLES WILL HAVE STAINLESS OR PLASTIC STEPS.
9. ALL MANHOLES MUST HAVE ROUND NOTCHED COVERS WITH PICK UP FOR REMOVAL
10. FOR NEW CONSTRUCTION BOTTOM OF INLET PIPE INTO MANHOLE MUST BE AT LEAST 3 INCHES ABOVE THE BOTTOM OF THE TROUGH THRU THE MANHOLE.

NOTE:  
SANITARY PIPING FROM TOILETS MUST TIE  
IN DOWNSTREAM FROM SAMPLING MANHOLE.



PLAN VIEW



## SECTION

5 SAMPLING MANHOLE DETAIL

P603 NO SCALE



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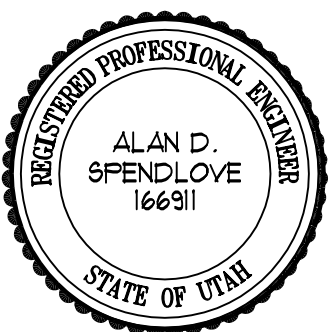
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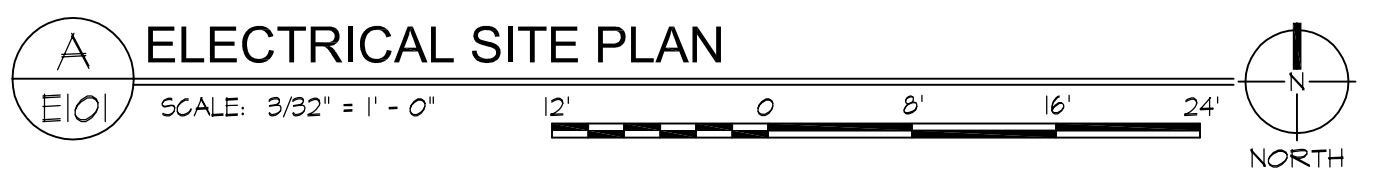
## PLUMBING DETAILS

P603

ABBREVIATIONS			
AF	ABOVE FINISHED FLOOR	EW	ELECTRIC WATER COOLER
AF	ARC FAULT PROTECTOR	EW	ELECTRIC WATER HEATER
AI	AMP INTERRUPTING CURRENT (SYMMETRICAL)	FA	FUTURE
AL	ALUMINUM	FA	FIRE ALARM
BG	BELOW GRADE	FL	FULL LOAD AMPS
C	CONDUIT	GFI	GROUND FAULT INTERRUPTER
DFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	GFP	GROUND FAULT PROTECTOR
DKT	CIRCUIT	GR	GALVANIZED RIGID CONDUIT
DI	CONDUIT ONLY	GR	GROUND
CU	COPPER	IG	ISOLATED GROUND
C/W	COMPLETE WITH	MCB	MAIN CIRCUIT BREAKER
EC	EMERGENCY	MC	MOTOR CONTROL CENTER
(E)	EXISTING	MH	MANHOLE
EPO	EMERGENCY POWER OFF	MLO	MAIN LUGS ONLY
		NO	NEW
		NIC	NIGHT IN CONTRACT
		NL	NIGHT LIGHT
		DFCI	OWNER FURNISHED CONTRACTOR INSTALLED
		DFDI	OWNER FURNISHED OWNER INSTALLED
		PNL	PANEL
		GR	RELLOCATE
		TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
		TYD	TYPICAL
		UNP	UNLESS NOTED OTHERWISE
		WP	WEATHER PROOF
		DEMOLISH/DELETE	DEMOLISH/DELETE
		XMR	TRANSFORMER
<p>■ THIS IS A TYPICAL ABBREVIATION LIST. NOT ALL ABBREVIATIONS ARE USED ON THIS PROJECT.</p>			

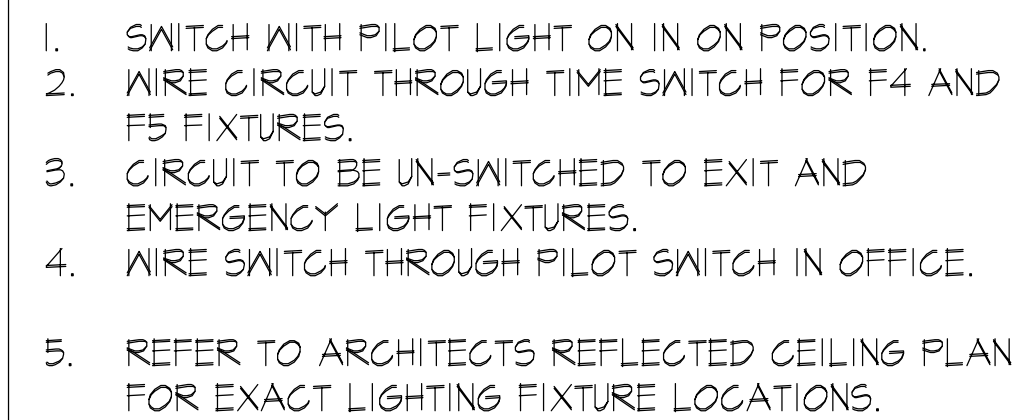
1. THE ELECTRICAL CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
2. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS BOUND IN A THREE RING BINDER, INDEXED IN A NEAT AND ORDERLY MANNER WITH TYPE AND NUMBER INDICATING LOCATION AND DATE. SHOP DRAWINGS INCLUDE BUT NOT LIMITED TO: LIGHTING FIXTURES, LAMPS, WIRING DEVICES, OCCUPANCY/SENSORS, CONTROLS, TIME CLOCKS, PHOTOCELLS, RELAYS, SWITCHBOARDS, PANELBOARDS, MOTOR CONTROL CENTERS, SAFETY SWITCHES, MOTOR STARTERS, OVERCURRENT PROTECTIVE DEVICES, TRANSFORMERS, CONDUCTORS, 480V VOLTAGE AND ALL SPECIAL SYSTEMS SUCH AS FIRE ALARM, LIGHTING CONTROLS, SECURITY SYSTEMS, SOUND SYSTEMS ETC.
3. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. MANUFACTURES CATALOG NUMBERS ARE LISTED AS A BASIS OF DESIGN. ELECTRICAL CONTRACTOR SHALL SUBMIT PRODUCT INFORMATION THAT DEVIATES FROM ORIGINAL DESIGN INTENT AND SPECIFICATION.
4. CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY BUILDING PERMITS AND INSPECTION FEES.
5. ALL IMPACT FEES ASSOCIATED WITH CITY, UTILITY OR SERVICE COMPANIES FOR BUT NOT LIMITED TO POWER, TELEPHONE, FIBER OPTIC & INTERNET SHALL BE THE RESPONSIBILITY OF THE OWNER.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE GENERAL CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY POWER FOR PROJECT CONSTRUCTION AS REQUIRED. ALL ENERGY COSTS ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
7. DO NOT SCALE DRAWINGS VERIFY DIMENSIONS IN FIELD PRIOR TO MAKING ANY ROUGH-IN.
8. ELECTRICAL CONTRACTOR SHALL REVIEW ALL ARCHITECTS ELEVATIONS, SECTIONS AND FLOOR PLANS PRIOR TO ROUGH IN OF ELECTRICAL DEVICE JUNCTION BOXES.
9. CONSULT ARCHITECTS REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES, SPEAKERS, SMOKE DETECTORS ETC.
10. ELECTRICAL CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING AND CEILING INSTALLATIONS.
11. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
12. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT CONTRACT DOCUMENT DRAWINGS AND SHOP DRAWINGS TO VERIFY AND MAINTAIN REQUIRED CLEARANCES.
13. ELECTRICAL ROOM DRAWINGS ARE FOR REFERENCE ONLY OF EQUIPMENT QUANTITIES. ELECTRICAL CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ELECTRICAL ROOM SHOWING DIMENSIONS AND CLEARANCES OF ALL EQUIPMENT AND ELECTRICAL GEAR PROVIDED. COORDINATE LAYOUT WITH ONE-LINE DRAWINGS.
14. CONTRACTOR SHALL VERIFY ACTUAL ELECTRICAL LOADS FROM NAMEPLATE RATINGS OF EACH PIECE OF EQUIPMENT REQUIRING POWER. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE PROJECT ENGINEER.
15. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER, PER INDUSTRY STANDARD AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
16. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
17. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PROVIDE ALL MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
18. ALL EMPTV RACEWAY SYSTEMS SHALL HAVE A 200LB STAMPED RULL CORD INSTALLED AND SHALL BE IDENTIFIED AT EACH JUNCTION RULL AND TERMINATION POINT, USING PERMANENT MARKER IN THE BOX. ID SHALL INDICATE INTENDED USE OF CONDUIT, ORIGINATION AND TERMINATION POINTS OF EACH INDIVIDUAL CONDUIT.
19. ALL PENETRATIONS OF FIRE RATED FLOORS, CEILING AND WALLS SHALL BE SEALED WITH UL LISTED AND RATED FIRE STOP MATERIAL TO MAINTAIN FIRE RATING OF ASSEMBLY.
20. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY OR CONCRETE COLUMNS, BEAMS OR GROUPTED CELLS OF MASONRY WALLS ADJACENT TO OPENINGS WITHOUT COORDINATION WITH THE MASONRY CONTRACTOR.
21. WIRE FOR GENERAL USE SHALL BE COPPER 15 C RATED. WIRING FOR HD FIXTURES WITH 9' OF CORRESPONDING BALLAST SHALL BE COPPER MINIMUM 90 C RATED. CONDUCTOR SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM 30 C AMBIENT TEMPERATURE ENVIRONMENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATIONS.
22. CONDUCTORS HAVE BEEN SIZED FOR VOLTAGE DROP AS PER PLANS AND DIRECT ROUTING. ANY DEVIATION IN CONDUIT ROUTING MAY INCREASE THE WIRE AND CONDUIT SIZE. ELECTRICAL CONTRACTOR IS RESPONSIBLE TO INQUIRE PROPER CONDUIT VOLTAGE DROP. VOLTAGE RESULTS BOTH INTERIOR AND EXTERIOR. THE VOLTAGE DROP SHALL NOT EXCEED 3% FOR BRANCH CIRCUITS AND 2% FOR FEEDERS FOR A TOTAL OF 5% COMBINED TOGETHER OF BRANCH AND FEEDER CIRCUITS TO THE FARTHEST OUTLET.
23. ALL WIRING IN PARTHET TREATMENT AREAS SHALL BE ENCLOSED IN METAL RACEWAYS. ALL RECEPTACLES, LIGHTING FIXTURES, ETC. SHALL HAVE A SEPARATE RULL GROUNDING CONDUCTOR FROM EACH DEVICE TO THE BRANCH PANEL. ELECTRICAL CONTRACTOR SHALL COMPLY WITH ARTICLE 91 OF THE 2008 NATIONAL ELECTRICAL CODE (e.g. WIRING, DEVICE PLACING, ETC.).
24. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL UTILITY METERING EQUIPMENT TO COMPLY WITH THE STANDARDS OF THE LOCAL OR PROJECT SPECIFIC POWER COMPANY.
25. VERIFY EXACT LOCATIONS OF ALL NEW AND EXISTING UNDERGROUN SITE UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING. A UTILITY LOCATING COMPANY SUCH AS "BLUE STATE" OR EQUAL SHALL BE USED TO VERIFY AND MARK UTILITIES BEFORE TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EROSION CONTROL, SUFFICIENT FEEDERS, (CONDUIT AND/OR RACE), RULL BOXES, TRANSFORMER PADS, SAN CUTTING AND PATCHING, CONCRETE PAVING ETC. REQUIRED. BACKFILL TRENCHES TO 40% COMPACTION. PATCHING SHALL MATCH EXISTING SURROUNDING SURFACES. CONTRACTOR SHALL OBTAIN AND VERIFY CITY/COMPANY DRAWINGS AND REQUIREMENTS FOR ALL SITE UTILITIES. ELECTRICAL CONTRACTOR SHALL ALSO COORDINATE ELECTRICAL RELATED UTILITIES WITH THE CIVIL, MECHANICAL, AND SITE EXCAVATION CONTRACTORS.
26. RULLBOXES, CABINETS ETC. MOUNTED ON THE EXTERIOR OF THE BUILDING SHALL BE WEATHERPROOF TYPE WITH HINGED GASKETED LOCKABLE COVERS SECURED WITH TAMPERPROOF SCREWS.
27. SPLICES IN EXTERIOR RULLBOXES AND MANHOLES SHALL BE MADE WATERPROOF USING "SCOTCAST" SPLICE PUT OR APPROVED EQUAL. SEAL ENDS OF CONDUITS AND DUCTS ENTERING BOXES WITH "DUCTSEAL" OR EQUAL.
28. ELECTRICAL CONTRACTOR SHALL TEST AND VERIFY ALL SYSTEMS WITH PROJECT ENGINEER DURING FINAL INSPECTION TO INSURE PROPER OPERATION. IF TESTS RESULT IN DEFECT THE CONTRACTOR SHALL MAKE ANY CORRECTIONS NECESSARY AT NO ADDITIONAL COSTS TO THE OWNER.
29. PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
30. THE CONTRACTOR SHALL GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP, WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION. DEFECTS SHALL BE PROMPTLY CORRECTED.

# E001



E101

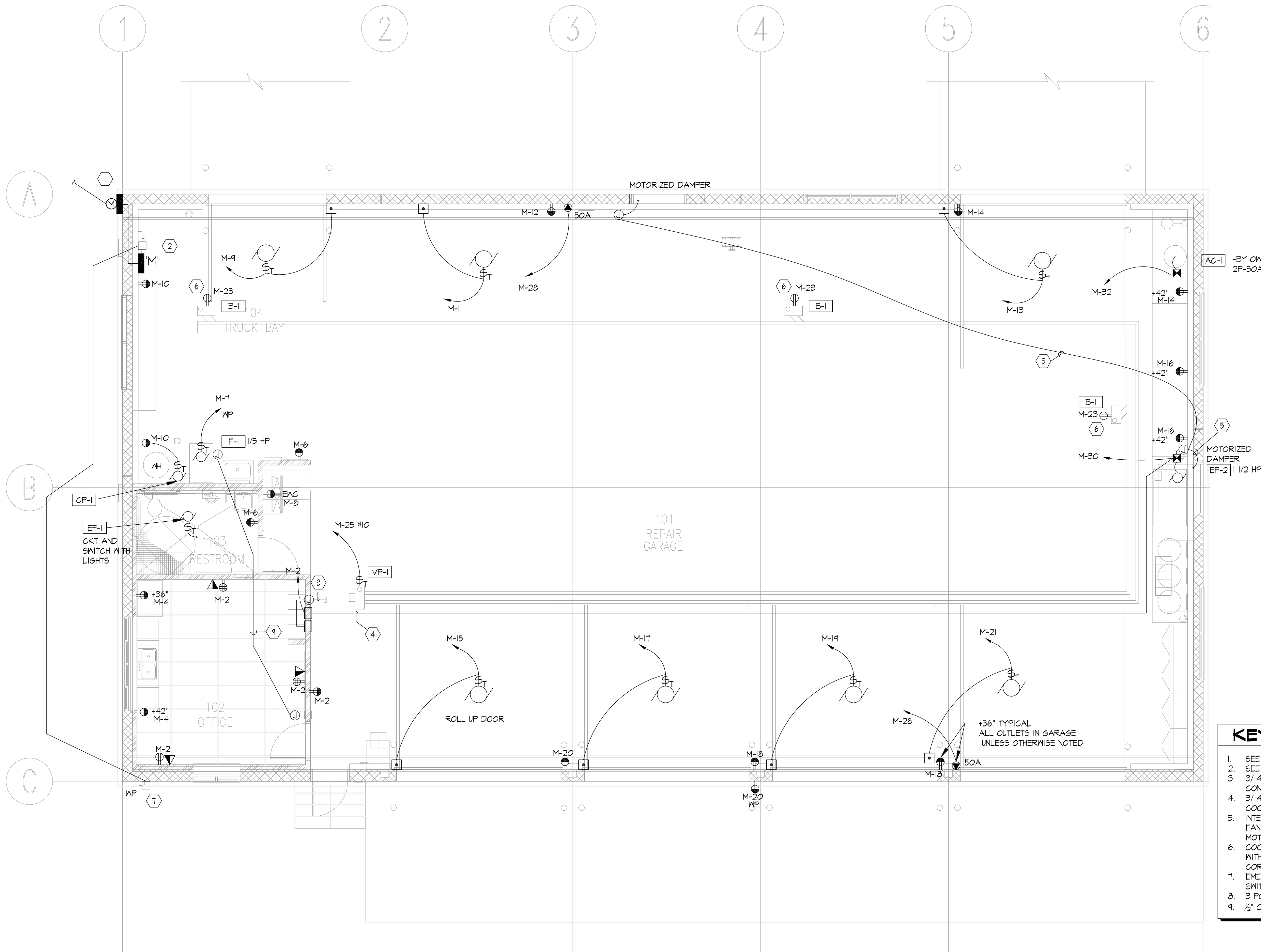




**E ELECTRICAL LIGHTING PLAN**

201 SCALE: 3/16" = 1' - 0" 6' 0 4' 8' 12'

E201



**E ELECTRICAL POWER PLAN**  
301 SCALE: 3/16" = 1' - 0"

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	2-09	CONSTRUCTION DOCUMENTS
	1-19-09	90% REVIEW SUBMITTAL

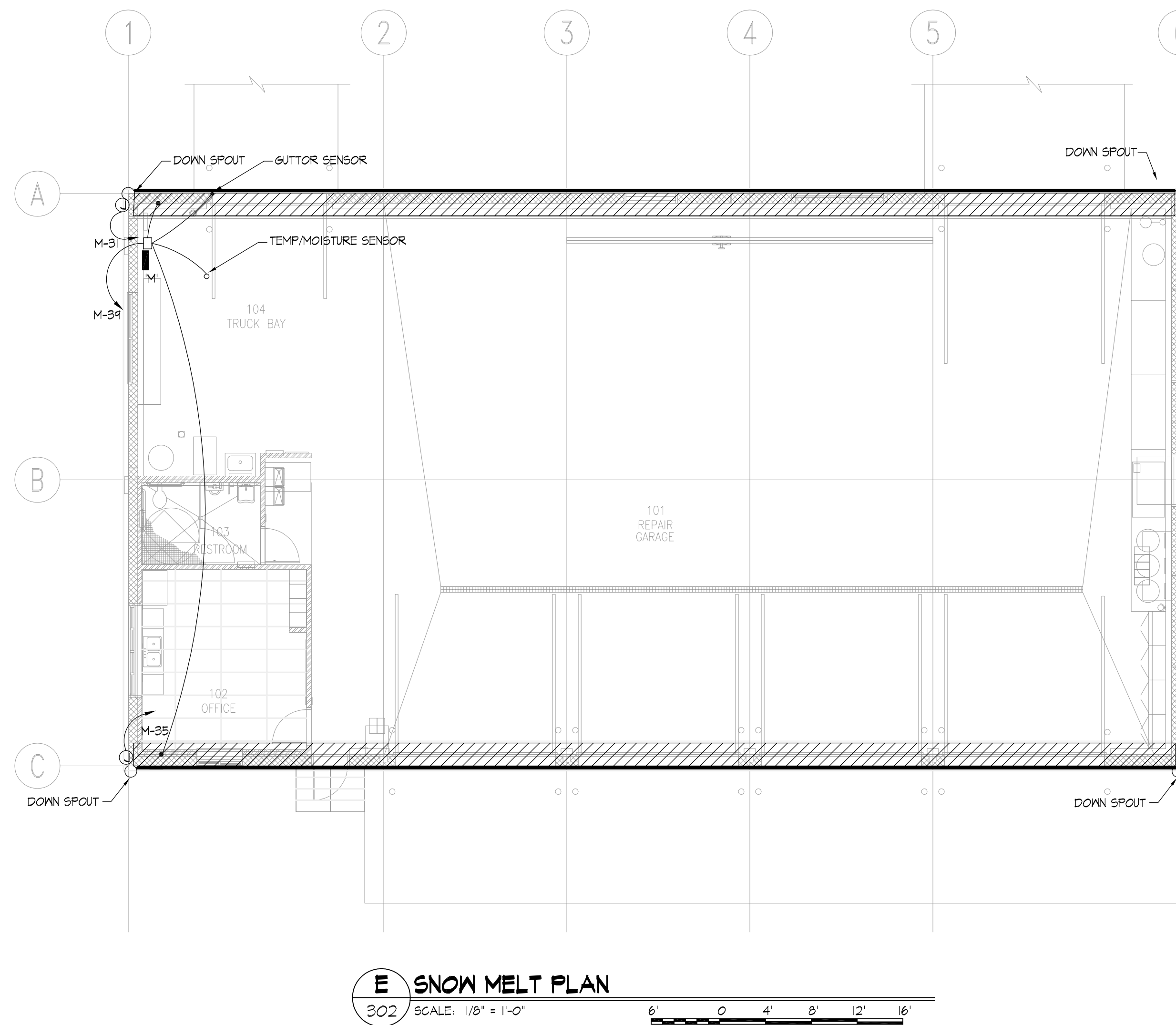
MARK DATE DESCRIPTION

DFCM PROJECT NO:	08300900
DFCM CONTRACT NO:	97236
ARCHIPLEX PROJECT NO:	0837.01
DRAWN BY:	PCH
CHECKED BY:	RKR
SCALE:	
DATE:	FEBRUARY, 2009

SHEET TITLE

**ELECTRICAL POWER  
PLAN**

**E301**





LIGHT FIXTURE SCHEDULE									
FIXTURE NUMBER	FIXTURE MANUFACTURER	FIXTURE CATALOG #	DESCRIPTION	LAMPS		FIXTURE		REMARKS	
				TYPE	QTY	VOLTS	WATTS		
F1	METALUX DAYBRITE	871A-2B2-EB81 T1A2B2-1/4EB	46" INDUSTRIAL FLUORESCENT (TANDEM)	F327B/SP35 EGO	4	120	182	SURFACE/CHAIN	PROVIDE WITH ELECTRONIC BALLAST
F2	METALUX DAYBRITE	26C-3B2A125-EB81 2DP93B2-F512-1/3EB	2X4 PRISMATIC LAYIN FIXTURE SPECIFICATION 6RADE (3-LAMP)	F327B/SP35 EGO	3	120	99	LAY-IN GRID	PROVIDE WITH ELECTRONIC BALLAST
F3	METALUX DAYBRITE	Y6-3B2A-EB81 CANB32-1/3EB	1X4 SURFACE FLUORESCENT (3 LAMP)	F327B/SP35 EGO	3	120	99	SURFACE CEILING	PROVIDE WITH ELECTRONIC BALLAST
F4	DAYBRITE LUMARK	PLD100M-LP MH6F-100H-MT-LL	100 WATT METAL HALIDE WALL PACK	100W MH	1	120	118	SURFACE WALL	
F5	DAYBRITE LUMARK	PLD250M-LP MH4L 250-MT-LL	250 WATT METAL HALIDE WALL PACK	250W MH	1	120	300	SURFACE WALL	
F6	DAYBRITE LUMARK	PLD100M-LP MH6F-100H-MT-LL	400 WATT METAL HALIDE FLOOD LIGHT	100W MH	1	120	118	SURFACE WALL	
F7	DAYBRITE LUMARK	FSM400MH-MH MHNK-Y-T6-400-120-YH	400 WATT METAL HALIDE WALL PACK	400W MH	1	120	465	SURFACE WALL	
F8	PORTFOLIO OMEGA	C10B2-E-105H-L1 5632PLU-T6C5	FLUOR. DOWNLIGHT 1/4"ALZAK TRIM 32 DTT LAMP	32 TRT	1	120	34	RECESSED	PROVIDE WITH ELECTRONIC BALLAST
EM	BODINE IOTA	B50 1-320	EMERGENCY BALLAST (21/4 FOOT T-8 LAMP)	----	----	120	----	----	EMERGENCY BALLAST (11/4 FOOT T8 LAMP) 1100 LUMENS MIN. VERIFY COMPATIBILITY BEFORE ORDERING
X1	SURE-LITES McPHILBEN	LPA-10-DSH4PH GCAL-1-GW	2-HEAD EM WALL PACK (SURFACE) WITH EXIT LIGHT	INCLUDED	2	120	5.4	SURFACE WALL	
X2	SURE-LITES McPHILBEN	CC-6-PH CT6	2-HEAD EM WALL PACK (SURFACE)	INCLUDED	2	120	5.4	SURFACE WALL	

NOTE:  
ELECTRICAL CONTRACTOR SHALL PROVIDE A QUICK DISCONNECT HARNESS FOR EACH FLUORESCENT LIGHTING FIXTURE TO SERVE AS A MEANS OF DISCONNECT TO ALLOW THE FIXTURE BALLAST TO BE SERVICED IN PLACE, AS PER THE NATIONAL ELECTRICAL CODE 2008, ARTICLE 410.130 (6).

PANEL:

M

VOLTAGE:

240 / 120

MOUNTING:

SURFACE

ENCLOSURE:

NEMA 1

REMARKS:

BUS AMPS:

225

MAIN OVERCURRENT DEVICE:

L105

MAIN OVERCURRENT AMPS:

N/A

MINIMUM EQUIPMENT RATINGS:

22,000

USE

E = Equipment Load

L = Lighting Load

K = Kitchen Equipment

R = Receptacle Load

BREAKER

NO.

AMPS

POLE

CIRCUIT NAME

FEEDER

C

WIRE

GRD

USE

MATS

0A

0B

MATS

USE

GRD

WIRE

C

GKT. LOAD

LOAD(MMSE/VA)

GKT. LOAD

FEEDER

CIRCUIT NAME

POLE

AMPS

NO.

1

20

1

LIGHTING

3/4"

#12

L

1,040

2,840

1,800

R

#12

3/4"

RECEPTACLES

1

20

2

3

20

1

LIGHTING

3/4"

#12

L

1,440

1,000

R

#12

3/4"

RECEPTACLES

1

20

4

5

20

1

LIGHTING

3/4"

#12

L

1,400

2,120

720

R

#12

3/4"

RECEPTACLES

1

20

6

7

20

1

FURNACE F-1

3/4"

#12

M

500

600

R

#12

3/4"

RECEPTACLES

1

20

8

9

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

1,820

1,200

R

#12

3/4"

RECEPTACLES

1

20

10

11

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

1,820

R

#12

3/4"

RECEPTACLES

1

20

12

13

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

1,820

720

R

#12

3/4"

RECEPTACLES

1

20

14

15

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

1,820

R

#12

3/4"

RECEPTACLES

1

20

15

17

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

1,820

720

R

#12

3/4"

RECEPTACLES

1

20

16

19

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

1,820

R

#10

3/4"

RECEPTACLES

1

20

20

21

20

1

ROLL-UP DOOR

3/4"

#12

M

1,000

2,180

1,080

R

#10

3/4"

RECEPTACLES

1

20

22

23

20

1

RADIANT HEAT BURNERS B-1

3/4"

#12

E

400

1,200

M

#12

3/4"

EXHAUST

1

20

24

25

30

1

VACUUM PUMP 3/4 HP VPH-1

3/4"

#10

E

300

2,300

800

M

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EF-2

---

26

26

27

20

2

GATE

3/4"

#10

E

800

2,000

E

#6

#6

1"

SPECIAL PURPOSE

2

50

28

29

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E

800

4,000

2,000

E

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OUTLET

---

30

30

31

30

2

SNOW MELT CABLE

3/4"

#10

E

1,100

3,100

M

#8

1"

COMPRESSOR

2

40

32

33

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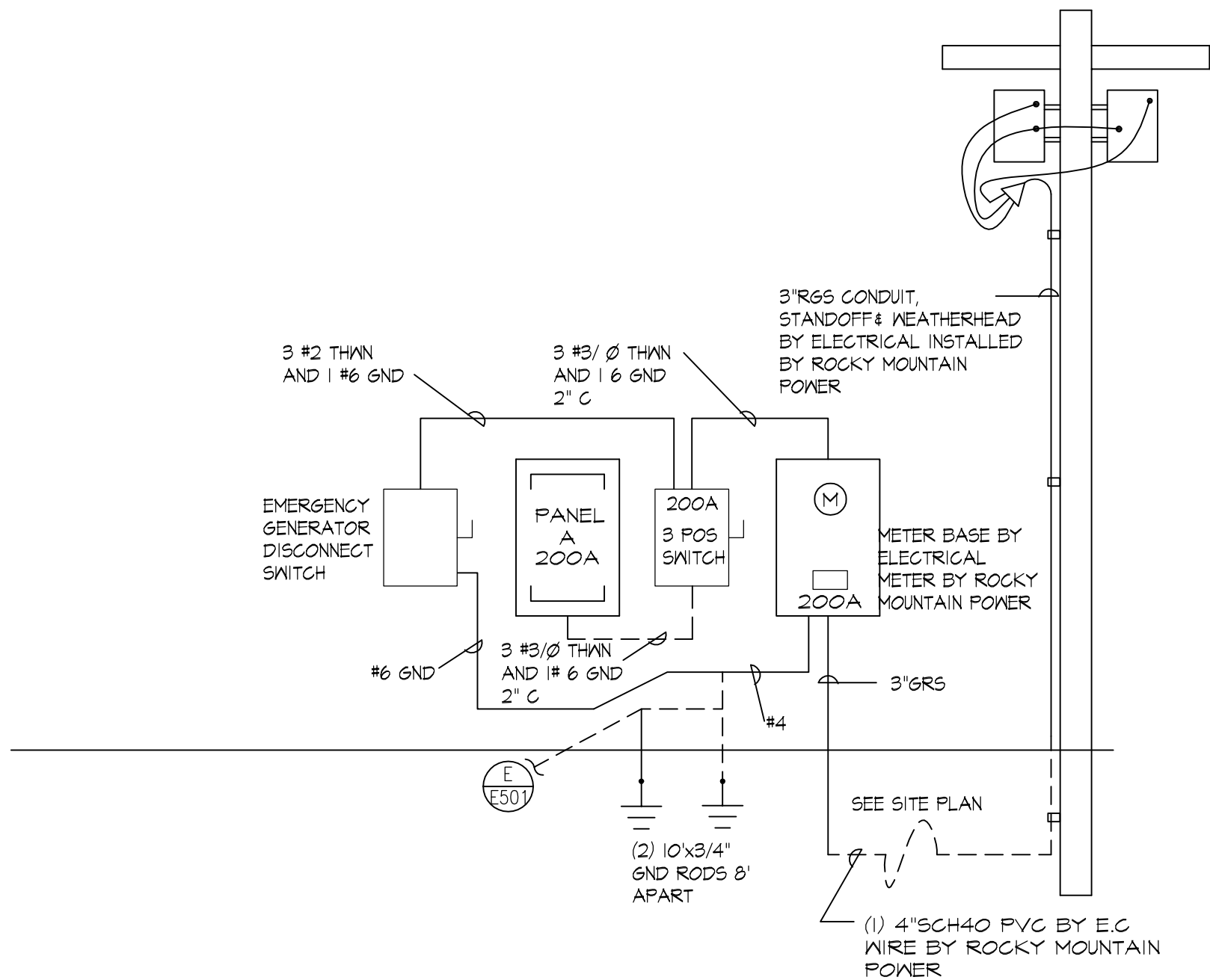
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A ONE LINE DIAGRAM  
E401

CLIENT



STATION #4435A  
50 FRONT STREET  
SCOFIELD, UTAH 84526

DESIGNER



architecture • planning • design services

255 Crossroad Square  
Salt Lake City, UT 84115  
P:(801) 961-7070  
F:(801) 961-7373

CONSULTANTS



1040 North 2200 West, Suite 100  
Salt Lake City, UT 84116  
Phone: (801) 359-3158  
Fax: (801) 521-4114

PROFESSIONAL SEAL



ISSUE

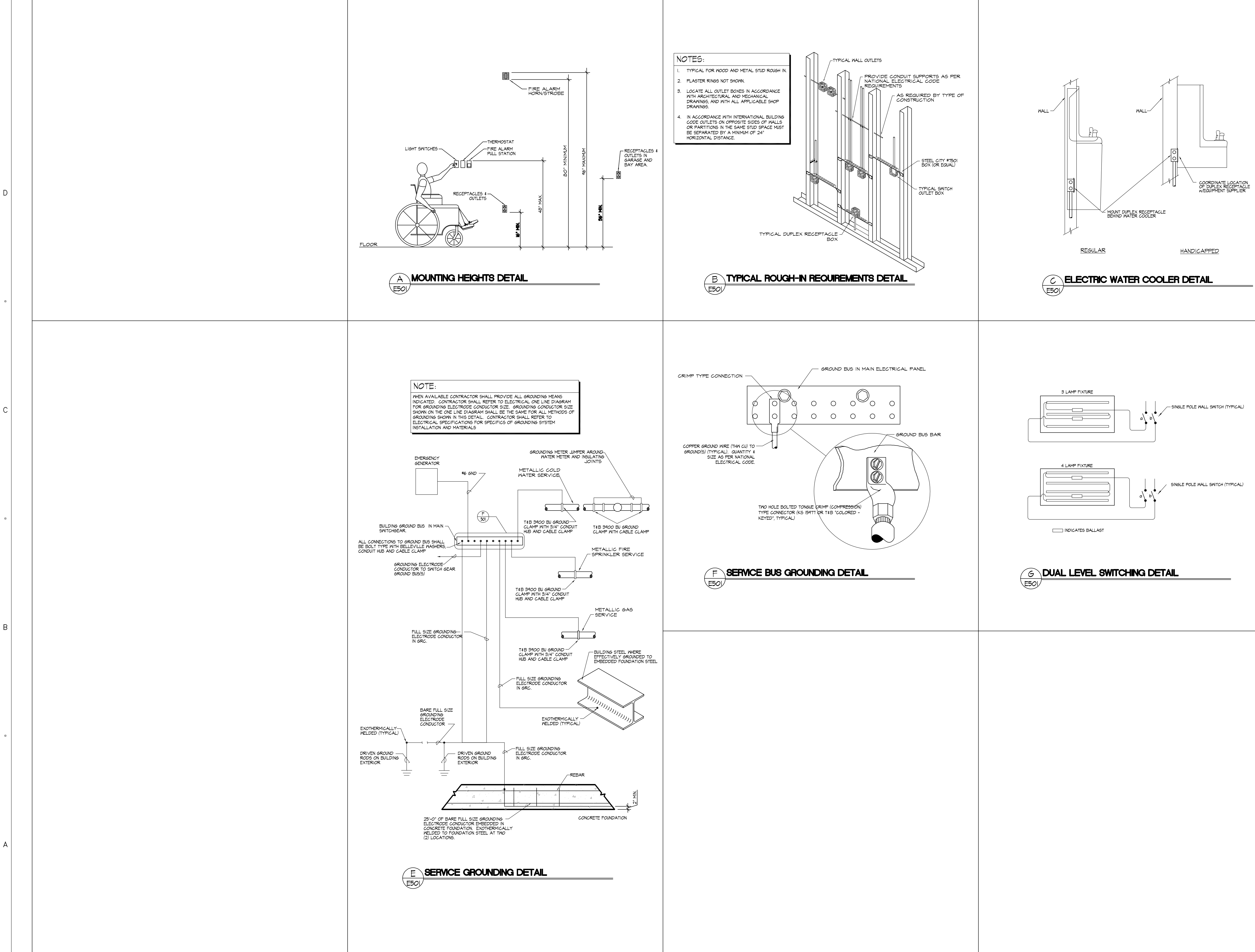
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SCALE:		
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SHEET TITLE

ONE LINE DIAGRAM  
AND PANEL  
SCHEDULES

E401



CLIENT

**LTPOT**  
CONNECTING COMMUNITIES

STATION #4435A  
50 FRONT STREET  
SCOFIELD, UTAH 84526

DESIGNER

**ARCHIPLEX**  
GROUP

architecture • planning • design services

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PROFESSIONAL SEAL

**DEAN P. LEVORSEN**  
No. 154867  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF UTAH

ISSUE		
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SHEET TITLE

**ELECTRICAL DETAILS**

E501